

JOHANNIS-AMOS COMENII
JANUA LINGUARUM

CUM 839

VERSIONE ANGLICANA;

Novissime ab ipso Authore Recognita,
Aucta, Emendata, & cum æneis Typis illustrata.

JANUA LINGUARUM

Translated into *English*, and Printed according to *J. A. Comenius* his last Edition, delivered with his own Hand.

So much altered, augmented, and amended, that it may be accounted as a new Work.

Illustrated and Adorned with

COPPER PRINTS.



L O N D O N,

Printed by **ROGER DANIEL.**

And are to be sold at his house in *Lovels Court* in *Parliament*
street Row, 1665.

JANUARIA LINGUA

VERSIONE ANGLICANA

JANUARIA LINGUA

COPPER PRINTS

ROGER DANIEL

THE
P R I N T E R
TO THE
R E A D E R.

READER,

TIs *Ianua Linguarum* I am now putting into thy hands; a Book whose design hath sufficiently approved it self to the world, that it needs not my commendation, nor is it proper for me, perhaps, that look so like a *Party*, to give in my testimony. I know the Proverb, *Laudat venales qui vult extrudere Merces*, and shall ward my self against it with that other, as vulgar and as pat to this occasion, *Vino vendibili*, &c. I do not set my self at this *Gate* then to invite *Custom*; nor do I mean this Preface for a *Busb*. All that I have to tell thee is; that as there have been severall Editions, so this has had *Comenius* his own last hand; which I have his *Hand* to testifie, at the beginning of my *Ianua Trilinguis*. In short, *This* is the very same with *That*, bating onely the Greek; and both *Text* and *Translation* as different from that which Mr. *Du-G.* put forth, as Eggs and Apples. For besides that Learned

* 2

Man

Man had, for some reasons of his own, chopt and
chang'd much of the *Latin*, almost in every Period,
at least as to the Order of the words: the *English* here
is quite a new thing to His; which Thou wilt easily
find by comparing. This I thought fit to acquaint
Thee with, to take off a possible prejudice; and to as-
sure Thee, that it has bin and shall be the practice of
my Presse, to do my *Authors* and their *Readers* all
the Right I can. Farewell.

R. DANIEL.



JANUÆ LL. TABULA SYNOPTICA.

Introitum, h. e. ad transeundam Rerum Nomenclaturam invitationem. ————— Cap. I.

Janua LL. habet suum	primus ordo, in Elementis. ————— II.	
	Naturæ: ubi spectatur Rerum naturalium	imperfectius { constantem, in Astris III.
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		creationem, seu Meteoris aereis, V.
		media constit. in variis aqueis, VI.
Trans- itum, per Res & Actio- nes,	progres- sus, in- ter res Elementis ortas	in Terra visce- { Succorū, VIII.
		ra, Mineralium, { Metallorū, IX.
	perfectius, per Generationem	in Terra { in genere, XI.
		superficie Vegetabi- & rudium
		lium { in spe- Herbarū, XII.
Exitum (Vide H.)	aberratio vid. (B)	in genere, XV.
		extra Ter- { in genere, XV.
	Perfectissime (Vide A.)	ram libere { Volatiliū, XVI
		se moven- { Natailiū, XVII
		tium Ani- { in spe- Mascue-
Homini (Vide C.)	Dei (Vid. G.)	malium { cie Gref- torum,
		Volatiliū, XVIII.
Exitum (Vide H.)	Perfectissime (Vide A.)	Ferarū,
		XIX.

):(:):

(C.) Ho

(A.) perfectissime, per divinitatis participationem, in HOMINE, cujus	Partes	Nativitas, Vita cursus, Obitus,		xx?	
		Corpus, e- jusque fa- brica	exterior, Membra,	xxi.	
			interior, Ossæ,	xxii.	
				Partes	Carneæ,
					Humorosa,
		Spiritus, ubi de facultate	Naturali,	xxv.	
			Vitali,	xxvi.	
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(B.) Aberrationes, seu Monstra,			xxxi.		

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				Agricultura,	xxxiii.		
				Pecuaria,	xxxiv.		
		2. Subtiliores, Mechanicæ, Naturæ opera transformantes in usus Vitæ	Necessarios scil.	{	Victum	xxxv.	
					Carneum,	xxxvi.	
					Potulentum,	xxxvii.	
				{	Amictum,	xxxviii.	
					Habitacula,	xxxix.	
			Commodos parando	{	Ustensilia domestica	Argillacea,	xl.
					Metallica,	xli.	
					Lignea & lineæ,	xlii.	
				{	Instrumenta viatoria	Pedestria,	xliii.
					Vehicularia,	xliv.	
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		Oblectatorios,		xlvii.			
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Homines dextre regendi (Politia) (Vide E.)							
Deum devote colendi (Religio) (Vide F.)							

D. Sub-

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Cujus culture mediū sunt

in quarum
suprema
Acade-
mia, do-
centur
Faculta-
tes qua-
tuor.

que docet recte

I. Philosophia, ———	LI.
Sapere, per notitiam	Numerorum, in Arithm. LII. Mensurarum, Geometria, LIII. Ponderum, Statica, LIV. Cæli, Astronomia, LV. Terre, Geographia, LVI. Gestorum, Historia, LVII. Cogitatio- num { presentium, Logica, VIII. præteritarum, Mne- monica, LIX. futurarum, Progno- stica, LX. Agere, h. e. per Virtutem vivere, LXI. directrix, Prudentia, LXII. Sedulitas, LXIII. Virtus a. est { sei- psum { Temperantia, LXIV Fortitudo, LXV. proxi- mum { Humanitas, LXVI. Justitia, LXVII. Benignitas, LXVIII. DEVM, Pietas, LXIX. fastigiata, Constantia, LXX. proprie, Grammatica & Lexica, LXXI. Lo- qui { ornate, Rhetorica, LXXII. & Oratoria, modulate, Poësis, LXXIII. & Musica, II. Medicina, ——— LXXIV. III. Jurisprudentia, ——— LXXV. IV. Theologia, ——— LXXVI. Conversatio erudita, ——— LXXVII.

minore, Dome- stica; cu- jus	{	sedes, Domus,	LXXVIII.
		Conjuges,	LXXIX.
		membra, { Parentes & Liberi,	LXXX.
		Heri & Servi,	LXXXI.
		accidens notabile, Mutatio	
		Familia,	LXXXII.
		(sedes, Urbs,	LXXXIII.
		membra, Cives,	LXXXIV.

majore, Urbica; cujus con- sideran- tur	{	negotia quadam singula- ria, quan- tum ad procuran- dam	{	Rerum sufficientiam, Mercat- tura,	LXX XV.	
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maxima, Prin- cipalis: cujus	{	sedes, Regio,	XC I.
		membra, Princeps cum Ordinibus,	XC II.
		factio insignis, Bellum,	XC III.

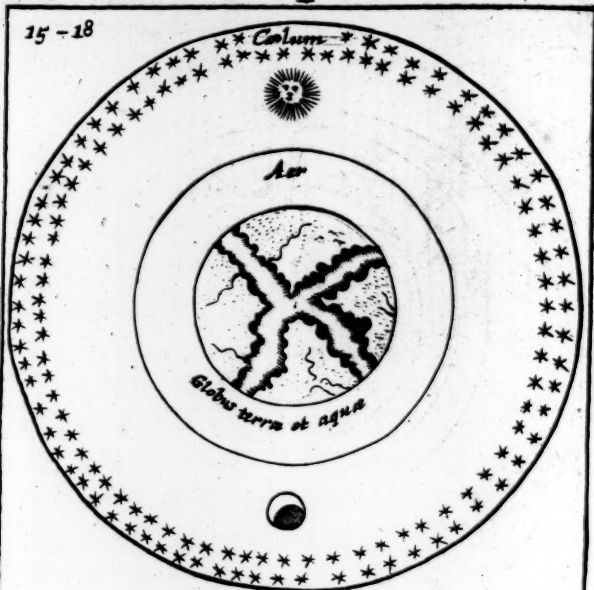
F. Deum devote colendi, Reli- gio,	{	formata divinitus, in hominis cujusque corde,	XC IV.	
		deformata in Gentilismo, per varios,	XC V.	
		reformata in Judaismo, per Mosen,	XC VI.	
		conformata primæve, archetypæ, per Christum,	XC VII.	
		transformata denuo ad confusionem, per Mahomedem,	XC VIII.	

(G) Dei, ubi de Providentia, ejusque administris Angelis, XC IX.

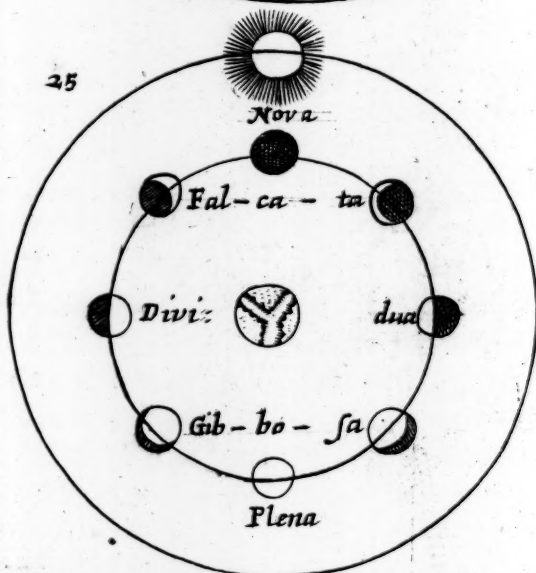
(H) Exitum, ostendentem horum omnium usum, ——— C.

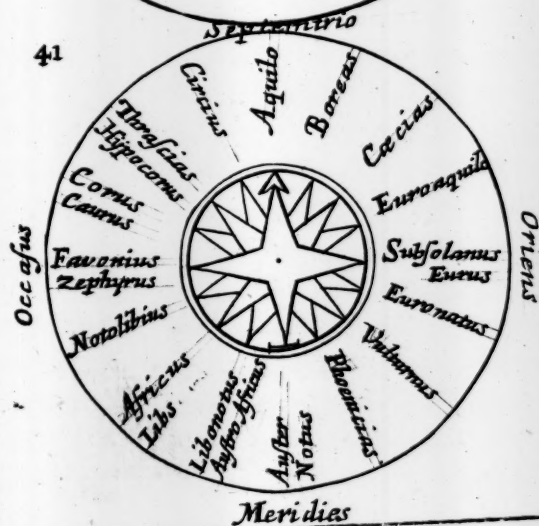
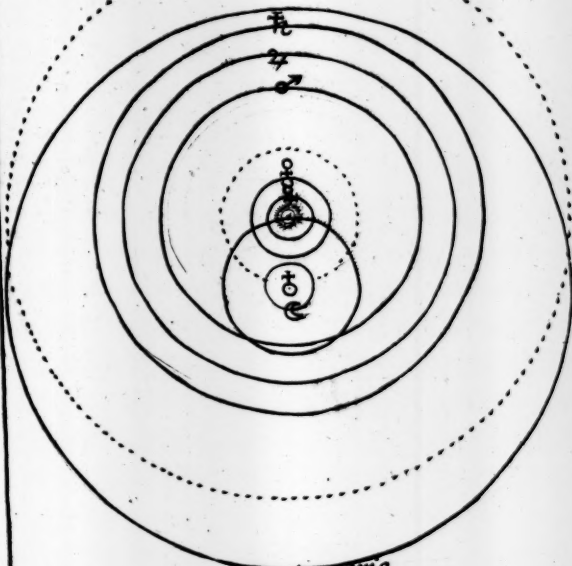
Lector, Si quid Comenio faves, Grammaticam illius Ele-
gantem, quæ modò sub prælo est, ab Officinâ meâ propediem
exspecta.

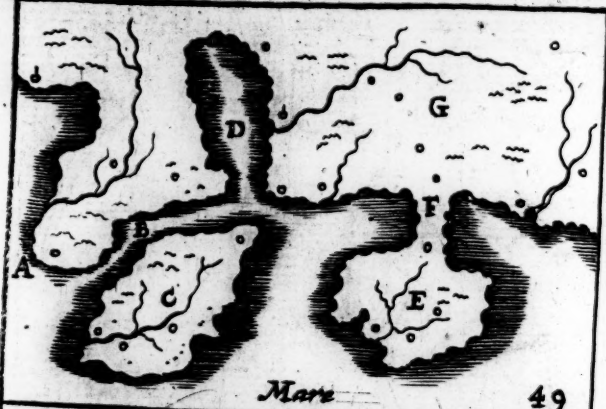
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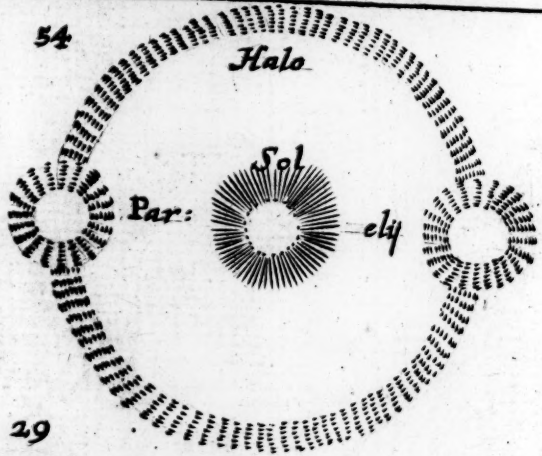






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A. Promontorium. B. Fretum. C. Insula. D. Sinus.
E. Peninsula. F. Isthmus G. Continens.

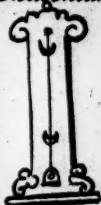


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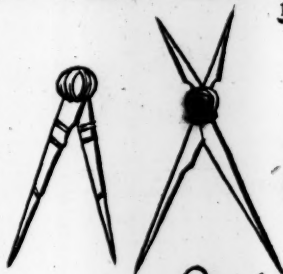


Libella. Perpendiculum. Circinus.

527

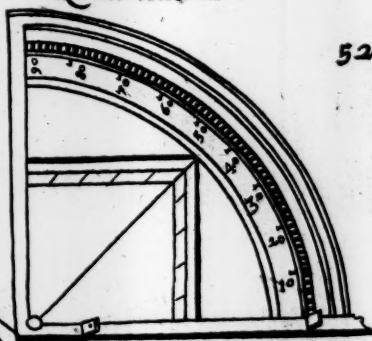


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Quadrans

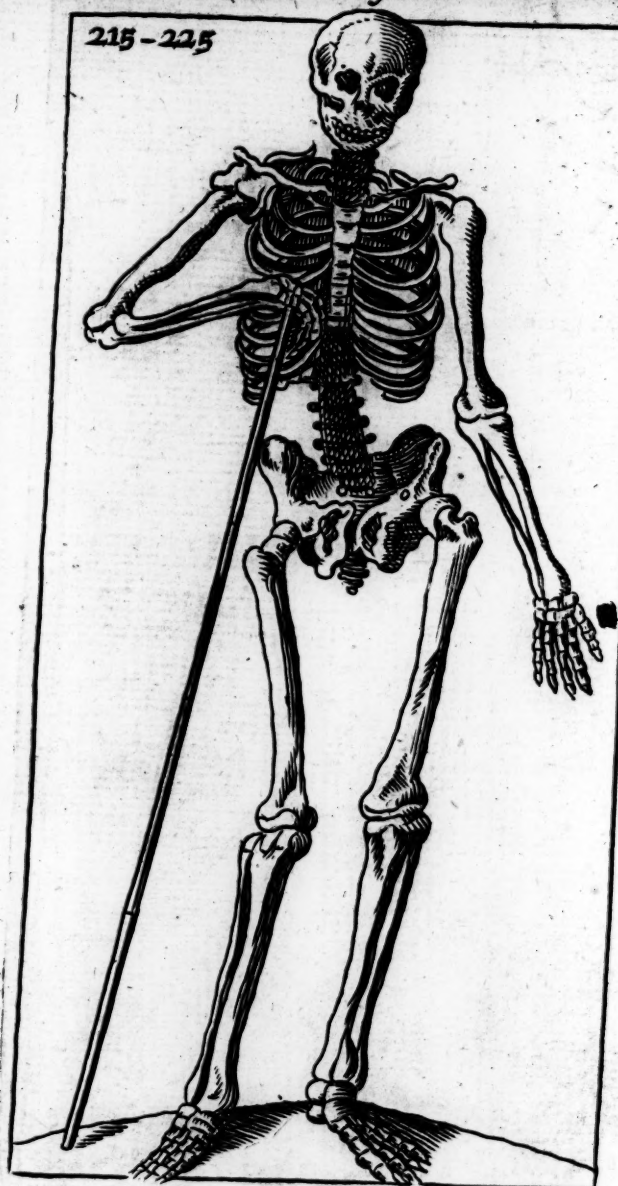
528



*Dimensio per quas
drantem*



215 - 225



215-225



226



226

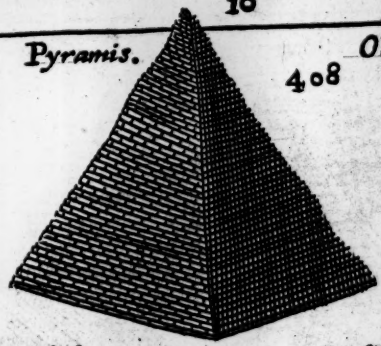


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1 Cor. 2 Pulmones. 3 Pericardium. 4 Ventriculus.
 5 Jecur. 6 Vesicula fellea. 7 Lim. 8 Renes.
 9 Vesica. 10 Intestina. 11 Diaphragma.

Pyramis.



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Obeli.

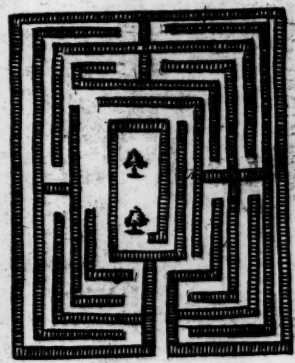


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Colossus.



Labyrinthus.



Archimedeae cochleae. 462

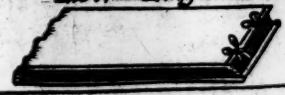


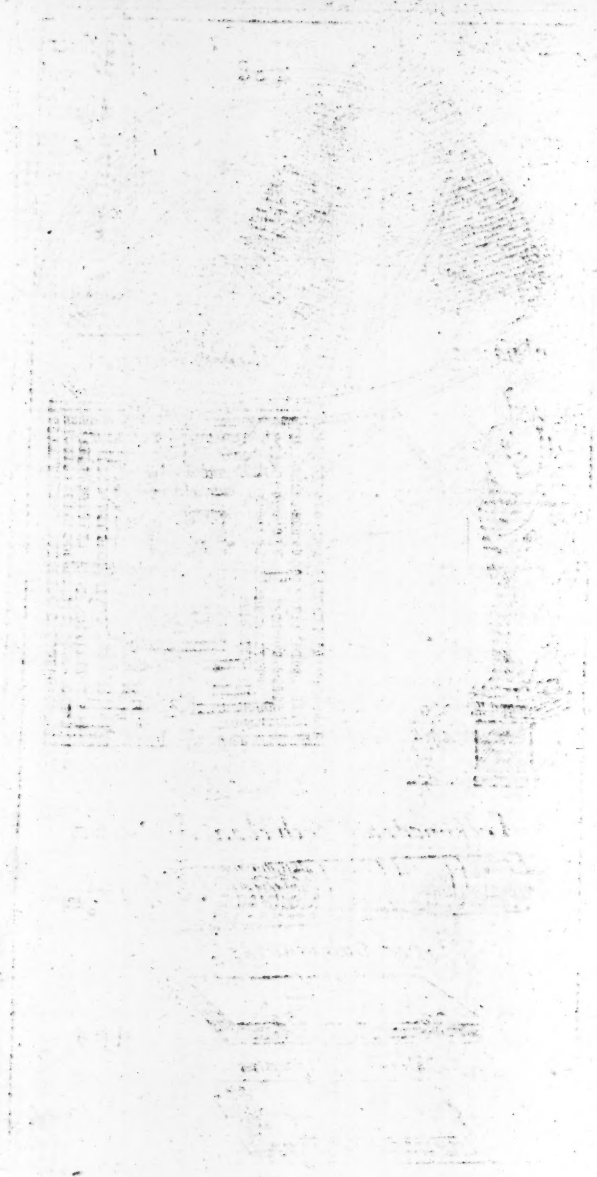
Liber Columnatus.



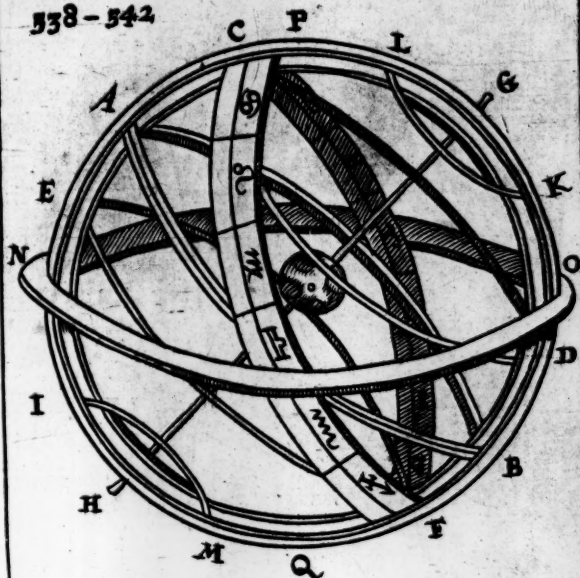
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Liber Lingvatus.

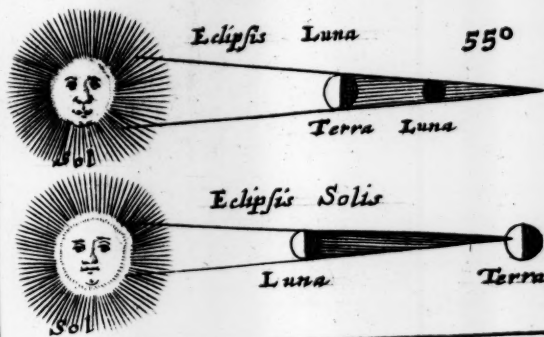




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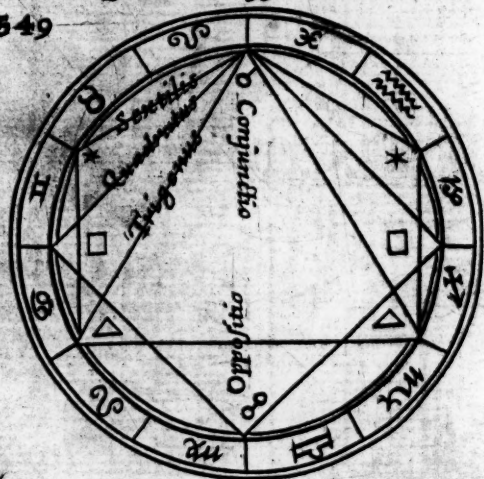


Aequator. AB. Tropicus Canceri CD. Tropicus Capricorni EF. Zodiacus CE. Axis mundi GH. Polus septentrionalis. G. Polus meridionalis H. Poli Zodiaci IK. Circelli polares KL et IM. Horizon NO. Meridianus GAHB. Zenith P. Nadir Q.



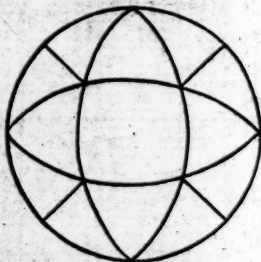
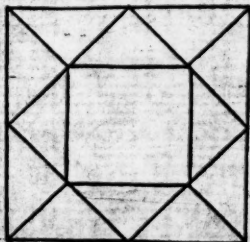
Schema adspēctum

549



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Schema Cœli



Statēra

534

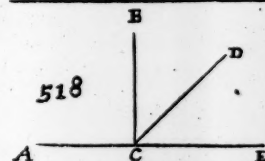


Bilanx

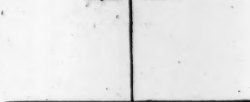
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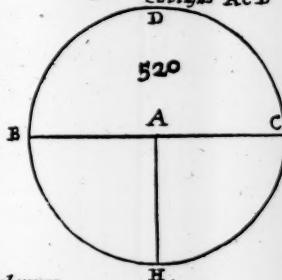
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Linea recta*Linea curva**Linea spiralis**Linea parallela*

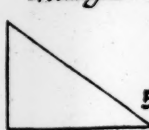
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Linea obliqua*Linea perpendicularis*

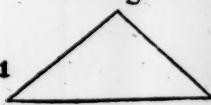
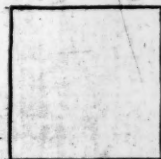
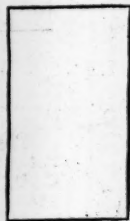
Angulus {
 rectus ACB
 acutus BCD
 obtusus ACD

*B D C H. Circumferentia**A. Centrum**AH Vel AC. Radius**BAC. Diameter*

520

*Triangulum
acutangulum**Triangulum
rectangulum*

521

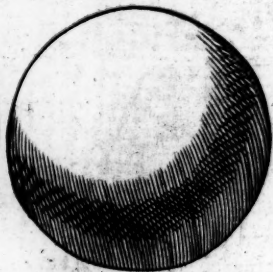
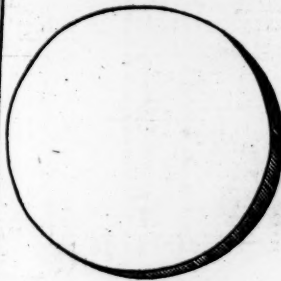
*Triangulum
obtus angulum**Quadratum**Oblongum**Rhombus*

522

Orbis

523

Globus



Cylindrus



Corpus orbiculatum



Corpus ovale



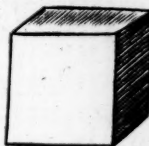
Conus



Turbo



Cubus



Tribulus

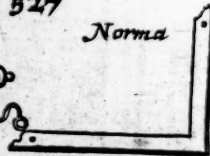


Amussis

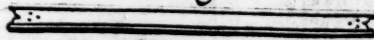
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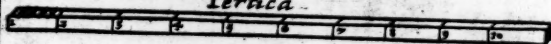
Norma



Regula

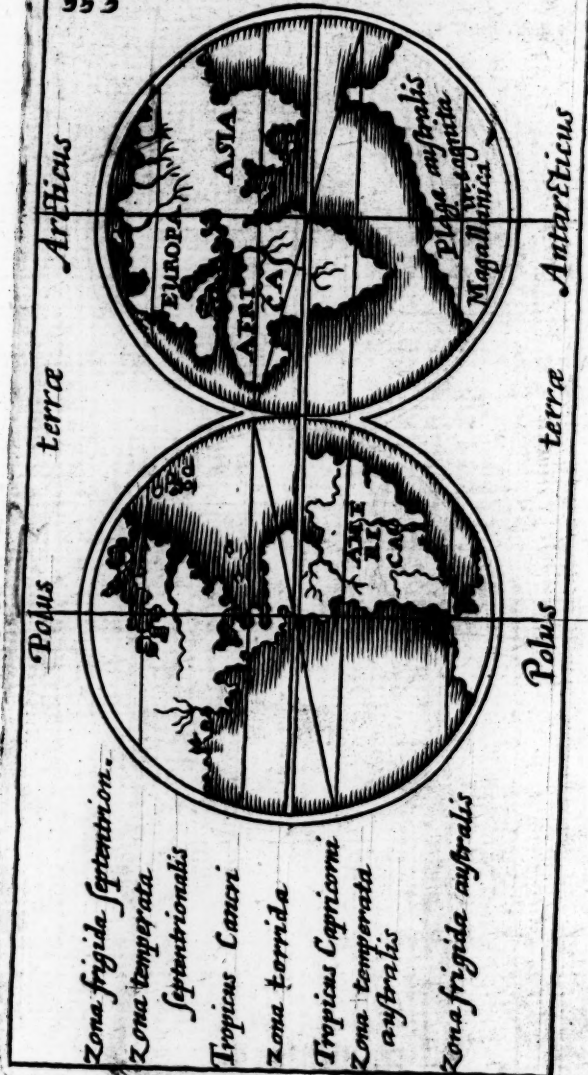


Pertica



Globus Terrestris.

553



Globus Coelestis.

544-545

Arcticus.

mundi

Polus



Antarcticus.

mundi

Polus



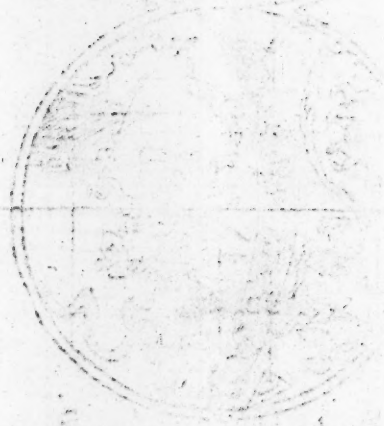
Circ. Polar Arctic.

Tropicus Canceri.

Æ. quator

Tropic. Capricorni.

Circ. Polar Antarctic.





J A N U A LINGUÆ LATINÆ.

C A P. I.

INTROITVS.

1. **L** Ector amice, salve.

2. Si rogas, *quid sit esse Eruditum?* Respondeo, *nōsse Differētiās Rerum*, & *posse signare Rem quamque propriā appellatione suā.*

3. Nihilne præterea? Nihil adeo: Is posuit fundamentum Eruditionis totius, qui perdidicit Nomenclaturam Rerum.

4. Nam Vocabula sunt nomina Rerum: Verbis rectè perceptis, Res percipiuntur: Et utrumque discitur melius junctim, quàm separatim.

5. At id est forsan difficile? Facillimum, si eatur ordine concinno, quò res digestæ sunt in se ipsis, lubentiaque adsit, & attentio sedula.

6. Aude me sequi! Tradu-

THE ENTRANCE.

1. **G** Od save you, friendly Reader.

2. If you demand, what it is to be a good Scholar? I answer, To know the Differences of Things, and to be able to mark out each Thing by it's own proper term.

3. Is there nothing else? Nothing sure: He hath laid the ground of all Scholarship, who hath thoroughly learnt the right-naming of Things.

4. For words are the notes [marks] of things. Words being (then) understood aright, Things are understood: and both are better learnt together, then asunder.

5. But that peradventure is hard? Very easie, if we go in this handsom order, whereby things are in themselves ranked, and there be a willing-mind and a close attendance.

6. Dare but to follow me! I

cam te per omnia ; ostendam-
que tibi Res singulas, ibi, ubi
sunt: & appellabo sic, quomo-
do appellandæ sunt.

7. Quicquid conspexeri-
mus, (inquam) nominabo tibi,
& describam primò rem totam,
ut scias quid sit; tùm partes
ejus, ut intelligas quid habeat:
demum differentias illius, ut
tibi notescat, quot modis ali-
quid sit, faciat, deficiat: &
quomodo id Latine sit efferen-
dum propriè.

8. Eja ! prodeamus *sub-
dium*, ibi contempleris,
quicquid Deus ab initio pro-
duxit, & adhuc operatur per
naturam.

9. Post adibimus *Villas, Opi-
scinas, Scholas*; ubi conspicias,
quomodo homines, tùm accom-
modent divina illa opera usibus
suis, tùm erudiant seipsos in
Artibus, Moribus, Linguis.

10. Dehinc intrabimus *Do-
mos, Curias, Principumque Au-
las*: ad spectandum, qualiter
gerantur communitates.

11. Tandem visitabimus *Tem-
pla*; ubi observabis, quam di-
versè mortales quærant vene-
rari Creatorem suum, illique
uniri spiritualiter, & quomo-
do rursum ille moderetur om-
nia per omnipotentiam suam:

will guide you through all; and will
shew you the several Things there,
where they are: and will term them
so as they are to be termed.

7. whatsoever we shall see [be-
hold] I will (I say) name it to you,
and set down first the thing in whole,
that you may know what 'tis ; then
its parts, that you may understand
what it hath [in it :] lastly the dif-
ferences of it, that you may be ac-
quainted in what several manners
any thing is, acts, or fails: and how
it is properly to be expressed in Latine.

8. Come on ! let us goe out a-
broad, there you shall survey what-
soever God hath from the beginning
produced, and doth still work by na-
ture.

9. After we will go to Villa-
ges, Shops, Schools; where you
shall take notice, after what manner
men as-well fit those works of God
to their own uses, as breed up them-
selves in Arts [trades,] Manners
[behaviour,] Languages.

10. Thence we will enter Houses,
Courts, and Princes Halls: to
view how communities [corpora-
tions] are manag'd.

11. At length we will visit the
Temples: where you shall observe,
how variously mortal men seek to
worship their Creatour, and to be
spiritually united to him, and how
again he over-rules all things by his
Almighty power.

12. Ita nobis cuncta venient in conspectum, quæ usquam sunt vel fiunt, tibi quæ innotescunt (rationabili inspectione Rerum, ac nomenclatione) *Res ipsæ Naturales, Artificiales, Morales, Divinæ, totæque Latinitas pura.*

13. Pavescisne, quod habemus transire tam multa? Confide! dum ibimus rectâ, & continuo, poterimus pertransire citò: neque tædebit te deambulationis tam jucundæ, ubi semper nova spectacula obvenient.

14. Ora Deum, ut fortunet institutum! & si voles subsequi me alacriter, spera profectum bonum, ultra quam promitto.

12. Thus all things shall come into our view, which either be or are made (or done) in any place, and you shall grow acquainted (by a reasonable overlooking of Things, and naming [of them]) with Things themselves Natural, Artificial, Moral, Divine, and with the whole pure Latine tongue.

13. Are you dismay'd, that we have so many things to pass over? Take heart! whilst we keep on straight forward, we may quickly get over: neither will you be weary of so pleasant a walk, where new sights will accost you all the way.

14. Pray to God, that he may prosper our intent! and if you will but cheerfully attend me, hope for a good improvement, beyond what I promise.

C A P. II.

Prima forma mundi, Elementa.

The first form of the world, the Elements.

15. En sumus sub diò! Circumspice jam! Quicquid vides, sursum & deorsum, prorsum retrorsum, dextrorsum & sinistrorsum, Mundus est.

Vide Tabulam I.

16. Fornix ille spatiosus, expansus supra nos rotundè, vocatur Cælum.

17. Pavimentum autem hoc suppositum pedibus nostris, &

15. Behold [see] we are i'th' open air! Look about now! whatsoever you see, upward and downward, forward and backward, on your right hand, and on your left, is the World.

16. That wide arch, spread all round over us, is call'd Heaven.

17. But this pavement here laid under our feet, and moated on this

circumfluum hinc indè *Aquis*, *side and that with Waters*, is the
est *Terra*. *Earth*.

18. Denique, spatium istud pellucidum, quod ambit nos undique, & interjacet æqualiter fornici ac pavimento, dicitur *Aer*. *Vide Tab. I.* 18. *Lastly, that clear space, which on every side environs [surrounds] us, and lies equally betwixt the vault and the pavement, is term'd the Air.*

19. Hæc *Elementa* quatuor, producta mox in creatione, ex informi & tenebroso chao sunt discreta in regiones idè, ut reliquæ creaturæ possent habitare in illis, nutririque ex illis; & cum intereunt, resolvitur rursus in illa. 19. *These four Elements, being immediately produc'd in the creation, out of the mishapen and dark chaos were sever'd into regions [quarters] for that cause, that the rest of the creatures might dwell in them, and be nourished by them; and when they perish, be again resolv'd [turn'd] into them.*

20. Omnia loca sunt plena *Elementis*, idque coherentiâ irruptâ, cum perpetuo ad invicem tritu, ac mixtione: unde provenit corruptio rerum, novæque generatio aliarum. 20. *All places are full of the Elements, and that by an uninterrupted coherence, with a continual rubbing against, and mingling with one another: from whence proceeds the corruption [spoiling] of things, and the new generation [begetting] of others.*

C A P. III.

Aether cum Astris.

The Sky with the Stars.

21. Suspice æthera! Ecce ibi sydera, illuminantia tenebras radiis suis lucidis, & exalefacientia ardore suo, colliquantiaque *Elementa*; & dimetientia nobis tempora perenni suo cursu (quem habent à sua flammanante vi.) 21. *Look up to the sky! see there are the stars that enlighten the darkness with their bright rays, and with their burning-heat over-heat & melt the Elements; and measure out to us the times [and seasons] by their annual [constant] course (which they have from their own flaming force.*

22. Sol est fulgentissimus

22. *The Sun is the most glitter-inter.*

inter illa, origo nostræ lucis : facit nobis præsentia suâ Diem, absentia Noctem : post ejus occasum mox vesperscit, ante ejus exortum venit aurora, moxque diescit. Cum lucefcit, vocamus diluculum ; cum noctefcit, crepusculum.

23. Idem Sol facit Ver æn-
nali suâ ad nos propinquo-
ne; Autumnum verò, à nobis re-
cessione : & utrobique æqui-
noctium, vernum & autumnale : cum fertur summus, solstium, & Æstatem atque æstum ; brumam verò cum inus est, orditurque Hyemem & gelua.

24. A Sole igitur exoritur
primariò temporum dimensio :
quia circuitus ejus facit Diem :
qui dividitur in viginti qua-
tuor horas, hora in sexaginta
minuta: septem dies dant hebdomadam, harum quatuor faciunt
mensem ; duodecim menses con-
stituunt annum, centum anni
unum seculum.

25. Luna, vicaria absentis
Solis, splendet non suo, sed il-
lius mutuatitio lumine : à quo
irradiatâ semper mediâ sui par-
te, non semper obvertit illu-
minatam illam faciem nobis
habitoribus terræ : ideò dum
ab illo divagatur, paret nobis

ing amongst them, the original of
our light : by his presence he causeth
Day, in's absence Night : after his
setting it presently grows late, before
his rising the morning approacheth,
and presently it dawneth [waxeth
day.] when it grows light we call
it break of day ; when night comes
on, twi-light.

23. The Sun also causes the
spring by his yearly approaching unto
us; and by his departure from us, the
autumn [fall of leaf ;] and on both
sides, the vernal and autumnal equi-
nox : when he is at the highest [he
makes] the solstice, and summer, &
hot weather; but when he is at low-
est, he maketh the shortest day, and
beginneth winter and frosts.

24. From the Sun then ariseth
principally the dimension [measuring]
of times, because his circuit makes a
Day : which is divided into four
and twenty hours, an hour into sixty
minutes: seven days make a week,
four of these make a month; twelve
months make up a year, a hundred
years one age.

25. The Moon, deputy of the
absent Sun, shines not by her own,
but by his borrowed light : whereby
she being enlightned always in one
half of her, doth not always turn that
enlightned face to us the inhabitants
of the earth : therefore whilest she
goes aside from him, she appears to

jam *crefcens*, jam *decrefcens*,
jam *plena*, jam *gibbosa*, jam *di-*
vidua, jam *falcata*, jam *nulla*;
facitque noctem jam *illuftrem*,
jam *fabluftrem*, jam *illumem*.
Vide Tab. 1.

us *fometimes increafing* [*waxing*,]
fometimes decreafing [*waning*,] *now*
at full, *now boffed* [*bumping*,] *now*
halved (*at fecond quarter*,) *now*
hooked (*at prime*,) *now nothing*
(*at change*;) *and ſhe makes the night*
now while clear (*light*,) *otherwife*
duskiſh, *otherwhile lightleſs*
[*moonleſs*.]

26. Præter hæc duo lumi-
naria, viſe nocte ſerenâ tripli-
ces *Stellas*, primùm *erraticas*
quinque (*planetas vocitant*,)
variantes motum & diſtantiã,
tam à ſe invicem, quàm à no-
bis; *Saturnum pallidum*, *Jovem*
ſplendidum, *Martem rutilantẽ*,
Mercurium valdè radiantem, *Ve-*
nerẽmque venuſtam, quæ *Solem*
antecedens, & *mane coruſcans*,
(*menſibus novem*) *cognomina-*
tur lucifer : *Solem autẽ inſe-*
quens, & *veſperi collucens*
(*totidem menſes*) *veſperugo*.

26. *Befides theſe two great lights*,
go ſee in a clear [*bright*] *night Stars*
of three ſorts; *fiſt the five wan-*
ding ones (*they call them planets*)
varying motion and diſtance, *as well*
from one another as from us; *pale*
Saturn, *bright Jupiter*, *Mars red*
as fire, *Mercury very glittering*,
and beautifull Venus, *which goeth*
before the Sun, *and gliſtering in the*
morning (*for nine moneths*) *is nam'd*
a morning-ſtar; *but when ſhe fol-*
lows the Sun, *and ſhines in the eve-*
ning (*for as many moneths*) *the Eve-*
ning-ſtar. *Vide Tab. 2.*

27. Dehinc *ſtellas fixas* (*hoc*
eſt, *immotas diſtantiis inter ſe*)
ſparſas per totam ætheream
ſphæram, quas *internofcas à*
planetis ſcintillatione; hæ nam-
que *ſcintillant*, illi *non item*;
præterquam quòd etiam *Vene-*
re & Mercurio *tremulum jubar*
emicat.

27. *Afterward the fixed ſtars*
(*that is*, *unmoved in their diſtances*
among themſelves) *ſcattered through*
the whole ethereal ſphere, *which you*
may know from the planets by their
ſparkling: *for theſe twinkle*, *they* (*the*
planets) *not ſo*; *beſides that alſo a*
quivering beam glanceth [*ſaſheth*]
out from Venus and Mercury.

28. *Sunt & exiles ſtellulæ*,
ſine conſpicillis inconſpicuæ;
quæ circa ſe ſpargunt ſplendo-

28. *There are too ſome poor little*
ſtars which cannot be ſeen without
perſpective-glaſſes; *which ſcatter*

rem duntaxat ; ut videre est in albedo illo circo porrecto per medium stellati cœli, quem vocant *viam lacteam*.

29. *Stellæ tertiæ generis sunt extraordinariæ, rarissimè apparentes, crinitæ aut barbæ, vel caudatæ; nuncupamus Cometæ: qui fulgeantne fulgore proprio an alieno incertum est. Vide Tab. 3.*

their brightness only about themselves: as is to be seen in that whitish circle stretched through the midst of the starry heaven, which they call the milky way.

29. The stars of the third sort are extraordinary ones, very seldom appearing, having shaggy locks, or beards, or tails; we call them Comets: which whether they blaze with a lustre of their own, or borrowed, is uncertain.

C A P. IV.

Ignis, cum meteoris ignitis.

Fire, with fiery meteors.

30. Contuitus es ignes si- dereos inextinguibiles; noster sublunaris alitur pinguitudine rerum; hac absument, exstinguitur: foveat calore suo propinqua, urit ardore proxima.

30. You have beheld the starry fires not to be quenched: our sublunary fire is maintain'd by the fatness of things; this being spent it flakes [goes out:] it cherisheth those things that are near it by it's warmth, it burneth those that are very near by it's burning-heat.

31. Quicquid aret, id per- facile ardescit, & mox gliscit, tum flammatur, ac si perflatur, flagrat: crematumque redigitur in favillas & cineres. Quod autem humet, (multo autem magis quod mader) in uestione fumat, fumigat, crepitat, scintillas disiecit.

31. Whatsoever is dry, is very easily set on fire, and straightway it glows [glimmers,] then in flames [is of a light fire,] and if it be blown, it blazeth, and being burnt up, it is turned into embers & ashes. But that which is moist, (and much more that which is wet) in the burning reaks, smoaks [smothers] crackles, throws about sparkles.

32. Perexigua scintillula incendit facile, si in quicquid stramentitium, vel stupeum, vel

32. The least spark, if it light upon any thing made of straw or tow, or other thing apt to kindle,

alias *flammascere idoneum* incidit: sed tu, ut incendium restinguas, comprime flammam confestim, vel affunde aquam, vel disjice fomitem.

33. Flamma est ardens fumus: qui adhærens fumario, spissatusque, dicitur *fuligo*, abradenda sæpius, nè ignescat.

34. Ignitum lignum vocabis *torrem*, extinctum *titioem*: hujus autem particulam *carbonem*: qui si etiamnum cander, *pruna* est.

35. Res torrefactæ æstu emittunt *exhalationes siccæ*: quæ in aërem sublimatæ, ibique accensæ, excitant *meteora ignea*, subito disparentia; ut sunt (1) *stellæ cadentes*, (2) *dracones volantes*, (3) *ignes fatui*, (4) item *fulgetra*, (5) *coruscationes*, (6) *chasmata*.

36. Quando verò halitus isti per incersionem colliduntur inter se, ciëntque *fulgura* & *tonitrua*, cum terribili fragore, cum *fulgurat*, *tonat*, *fulminat*, ut attoniti expavescamus.

37. Evibrata indè flamma dicitur *fulmen*, quod se momenter dissipat, & quicquid edicitur,

easily sets it on fire: but you, that you may quench a fire, keep in [smother] the flame, or forthwith pour some water on it, or scatter the fuel.

33. The flame is smok set on fire, which cleaving to the chimney, and being thickned, is called soot, which is often to be swept [scrap'd] off, lest it take fire.

34. Wood being a-fire call a fire-brand, baing put out [quench'd] a dead-brand: but a little piece of this, a coal; which if it gloweth still, is a live-coal.

35. Things parched with heat do send forth dry exhalations [steams,] which being carried up into the air, and there kindled, do stir up fiery meteors, presently disappearing; as are (1) falling stars, (2) flying dragons, (3) Jack in lanterns, [Rowlands, will-a-wisp;] (4) also flashing, (5) lightnings, (6) chasms [gapings.]

36. But when those steams [damps] after they are set on fire, are dashed amongst themselves, and raise thunders, and lightnings with a dreadful crack, then it flasheth, thundreth, lightneth, that being astonish'd [thunder-struck] we are scar'd [frighted.]

37. The flame darted thence is call'd the thunder-bolt, which disperseth it self in a vice, and

de subito penetratur, discutitur,
concidit : quâdoque & am-
buritur, vel penitus comburitur.

whatsoever is stricken with it, it is
on a sudden pierced, dash'd in
pieces, and falls down : and some-
times is blasted [sing'd,] or quite
burnt up.

C A P. V.

Aër, cum ventis.

The Air, with the Winds.

38. *Aër* agitur perpetim,
(quia expositus radiationi side-
rum) idque valdè uti iter, ob
vegetationem rerum : hinc ejus
status & status sunt diversi.

38. The Air is still in motion,
(because expos'd to the shining [in-
fluence] of the stars) and that very
profitably, for the growth of things :
from hence it's postures and blasts
are divers.

39. Si calefcit, tum rarefcit,
& dilatat se extra se : quàm fri-
gescit, tum spiffefcit, & contorquet
se intra se : utrobique si quietus
est, stat : si commotus, flat : nunc
lenius, nunc vehementius.

39. If it waxeth hot, then it ra-
rifies [grows thin] and enlargeth it
self without it self : when it waxeth
cold, then it thickens, and winds
it self within it self : on both sides if
it be quiet, it stands : if mov'd, it
blows ; sometimes more gently, other-
times more vehemently.

40. Lenis aura spirans fe-
cillat nos ; impetuosa procella
res quatit, procellit, proster-
nit. Turbo circumagens se in gy-
rum turbat omnia, donec mi-
rescat & conquiescat.

40. A mild gale breathing [pus-
sing] cherisheth us ; a boistrous storm
shaketh, throweth down, and batter-
eth things : the whirl-wind turning it
self round in a ring disturbs all
things, till it grow calm and be still.

41. Cardinales venti cum
suis medianis, reliquisque in-
tercurrentibus, habent nomina
ejusmodi. Vide Tab. 2.

41. The principal [quarter] winds
with their side-winds, and the rest
intercurring, have such like names.

42. Boreas & Eurus asperant,
adstringunt, gelant : Austro &
Favonio remolliunt, resolvunt,
relegant : Etesie flant flatis tem-

42. The North wind and East
wind doe make rugged, bind, freeze :
the South wind and West wind do
soften, loosen, thaw : the Etesie (or
poribus

poribus anni, alibi tamen aliter.

43. *Aër* explet etiam subterreas cavernas, cujus flamina ibi concitata, dum erumpere quærunt, tremefaciunt terram, undè *terramotus*: dum erumpunt cogunt eam desidere, undè *labes*, &c.

easterly blasts) blow at some set times of the year, yet otherwhere otherwise.

43. The Air also fills the hollow places under ground, the blasts whereof being there stirr'd up, whilst they seek to break out, they make the earth tremble, from whence are earthquakes: while they break forth, they make it sink down, from whence falls [breaches.] &c.

C A P. VI.

Aqua, cum aqueis meteoris.

The Water; with watry meteors.

44. *Aqua* scaturit è latice, salit è fonte, manat per rimas, fluit in plano: cujus minima pars gutta, maxima mare dicitur.

44. *Water* springs from a hidden-vein, it gusheth out from a fountain, it trickles through chinks, it flows on plain ground: whose least part is call'd a drop, the greatest a sea.

45. *Fontes falsi* dicuntur *salinae*; *acidi*, *acidulae*; *calidi*, *thermae*: illæ asserviunt decoquendo salis, istæ potioni medicabili, hæ lavationi morbidorum.

45. *Salt fountains* are call'd *salinae* [salt pits,] sharp ones, *acidulae* [the wells,] hot ones, *thermae* [baths:] the first serve for the boiling of salt, those other for physick-drink, and these for the washing of the diseased.

46. *Rivi* emanant è *scatebris*, confluunt in *fluvios*, tum in *flumina* intra suas ripas decurrunt. *Amnis* verò est *fluvius* huc illuc circumfluus; *torrens*, *fluvius* collectus ex aquis *pluvialibus*, rapidè *defluentibus*; *eluvio*, *fluvius* exundans è suis *alveis*, & *devastans* agros.

46. *Becks* [rills] issue out of fresh springs, and flow together into little rivers [streams,] then into large rivers [floods] running down within their banks. But *amnis* is a stream flowing about hither and thither: a brook is a stream gathered out of rain-waters running down swiftly [amain,] a land-flood, is a stream flowing out of it's own channels, and laying waste the fields.

47. *Flu-*

47. *Fluentum* nuncupabis, ubi aqua fluit; *vorticem* & *gyrgitem*, ubi gyatur; *voraginem*, ubi se ipsam absorbet; *abyssum*, ubi expers fundi est. Aqua sicubi destituitur profluvio, ac decursu, ibi tumet, ac se diffundit in *stagna*, & *lacus*: *paludes* sunt scaturigines languidæ, sine fluxu: *lacunæ*, confluviū limi.

48. *Mare* salsum est ad instar *muræ*: cujus *undæ* intumescunt bis de die (ab intranea æstuatione) affluuntque ad littora, & diffundunt se in æstuaria, refluuntque reciprocè eum sonitu horribili, maximè inter *freta*.

49. Idem mare, ubi inæqualiter tellurem terminat, efficit aut *sinum* aut *promontorium*: ubi circumluit undique, *insulam*: ubi majore parte, *peninsulam*; quam *isthmus* jungit *continenti*.

Vide Tab. 3.

50. *Vapores* aquosi sursum feruntur: quibus cum aer crassescit, dicitur *nubilare*. *Nubilum* verò seu caligo spissata prope terram, *nebula* est, (undè rorat;) sublevata altius, *nubes*, (undè pluit, ningit, grandi-

47. Call that a stream, where water streameth; where whirled round, a whirl-pool and a gulf; where it supbeth up it self, a swallow [*quag-mire*]; an abyss [bottomless pit,] where it is without bottom. The water if in any place it want issue and vent, swells, and spreads it self into standing pools [ponds,] and lakes: fenns [*marishes*] are faint springs without a water-course: ditches [puddles] are the flowing together of mud.

48. The Sea is salt like brine, whose waves do swell up twice a day (from an inward boyling) and flow to the shoar, and pour themselves into the washes, and ebb back again with an hideous noise, especially amidst the streights.

49. The same sea, where it unevenly boundeth the earth, it makes either a bay or a cape; where it washeth it round on every side, an Isle [island] where for the greater part, a peninsula (or almost an isle;) which an isthmus [neck of land] joyns to the continent [main land.]

50. waterish vapours are carried upward, wherewith when the air grows thick, it is said to be overcast. But the gloominess or darkness thickned near the earth, is a mist (whence it dems;) being lifted up higher, it is a cloud) whence it
nat:)

nat:) nullibi conspicua, *sundum*.

51. Evaporatio excitata, interdiu, conspissatâque frigiditâ nocturnâ, & accorporata herbis, dat rorem : quem mellitulum, vocant mannam; gelascentem, *pruinam*: elevatio autem vaporatio, concreta majori frigore, (in spumescences, guttulas ceu floccos) dat *nivem*.

52. Destillatio nubis resoluta in aquam, si sit minutatim, dicitur *roratio*: si lentè, *pluvia*: si densè, *imber* : si impetuosè, *nimbus*: si guttæ inter delabendum congelantur, *grando* : si incallescunt, *uredo*, adureus plantas rubigine.

53. Gutta stillans è pluvia, *stilla* est; quæ decidens in aquam, facit *bullam* : conglobatio bullarum minutissimarum, *spuma*: sed cum stillatio rigescit, sunt *stivæ* : cum aqua congelascit (stando vel fluendo) *glacies*.

54. Circulus in roscida nube albicans (ob luminaria) vocatur *halo*: solare simulacrum (ad solis latus) *parelius* : lunare, *paraselene* : *iris* est verficolor arcus, contrapositus quandôque soli; cujus pallor

rains, snows, hails;) and when in no place it is to be seen, then 'tis fair weather.

51. A vapour being raised in the day time, and congealed by the cold of the night & hanging on the herbs, it makes dew : which being sweet, they call manna [honey-dew ;] being frozen, an hoar-frost. The vapour being more elevated, and hardened by a greater cold, (into froathy drops like locks of wooll) giveth snow.)

52. The dropping of a cloud resolved into water, if it be leisurely, it is call'd a drizzling dew : if gently, rain : if close and thick, a shower: if fiercely, a storm : if the drops as they fall are congealed, hail: if they grow hot, a blasting, scorching the plants with mildew.

53. A drop dripping from the rain, is *stilla* [a falling drop,] which falling into the water, maketh a bubble: the gathering round of the smallest bubbles, froth; but when the dropping stiffens with cold, then are made icicles; and when the water freezeth (either standing still or running,) ice.

54. The whitest circle in a dewey cloud neer [over against] the luminaries is call'd halo (or circle about the moon:) the solar image (about the sun's sides) *parelius* (or counterfeit sun:) the lunar, *paraselene* (or counterfeit moon.) The rain-bow is a

index est venientis pluvix, claritas & serenitas abeuntis. Vide Tab. 3.

parti-colour'd bow, sometimes set over against the sun: whose paleness is the token [foreteller] of rain a coming, it's clearness and brightness of rain going away.

C A P. VII.

Terra, cum mineralibus.

The Earth, with the minerals.

55. Despice nunc ad terram, quàm habeat hîc quidem vastas planities, ibi tumulos & eminentes colles; alibi fragosa loca, imò & altos montes, profundasque valles: arduas & abruptas rupes, præcipitèssque hiatus; hîc herbidos cespites, ibi arida glabre-ta: alibi udas uligines, humorem semper eliquantes: & quam fit hîc argillosa, alibi arenosa, alibi saxosa.

55. Now look down to the earth, how it hath here vast plains, there tumps & lofty hillocks; otherwhere rugged places, yes & huge high mountains, and deep valleys, steep and cragg'd rocks, and head-long gaping holes: here grassy turfs, there dry plats: elsewhere wet plashtes continually squeezing out moisture: and how it is clayie [clammy] here, elsewhere sandy, in other places stony.

56. Si queas intueri ejus interiora, videres plenam meatuum & specuum: quos vaporaciones perfiant, & fluores perfluunt: è quibus (diversimodè coalescentibus) generantur fossilia & minere.

56. If you could but behold it's inward parts, you would see it full of passages and dennis: which vapours reach through, and moistures soak through: of which, (severally growing together) fossils and minerals are generated.

57. Glebam si teris, aut frias, pulvis erit; si diluis, lutum: sed turbida aqua deponit limum: pedibus calcamus cænum.

57. If you bruse or crumble a clod, it will be dust: if you mix it with water, muddy clay; but jogled water leaveth mud behind it: we tread dirt [mire] under our feet.

58. Argilla est terra tenax, figlinis apta: marga pinguis, idonea stercorandis agris: creta & ochra colorata, conveniens pigmentis: ex hac exusta fit ru-

58. white clay is clammy [tough] fit for potters uses; marl fat, good for dunging of ground: chalk and oker colour'd, convenient for paints: of this being burnt red lead (ruddle) brica:

brica : quæ omnes mineralium
inceptio sunt.

is made : all which are the beginning
of minerals.

C A P. VIII.

Succi minerales.

59. *Minerales succi generantur* (variarum formarum & usus) si mineralis fluoꝝ coalescit tantum leviculâ alteratione.

60. *Alii sunt liquabiles aquâ* : nempe omnis sal fugo, diffiliens in igne, & crepitans: ut *sal commune* ubique notum, (sive fossitium, sive decoctum :) *alumen*, dulcore adstrictorio: *vitriolum*, acore adstrictorio : *nitrum*, subacidum : (alias nominatim *sal nitri*, & quando concrevit *sal petrae*.)

61. *Alii sunt inflammabiles igne* : scilicet quælibet pinguedo terræ, tam concreta, quam liquida: ut est *sulfur* concipiens ignem celerrimè : & *naphtha*, etiam deprocul flammascens: & *succinum* translucidum, ambræque fragrantissima, & alia bitumina non unius generis.

62. *Alii friabiles in pulverem*, & convertibiles in pigmenta: *arsenicum* albens, *auripigmentum* luteum, *sandaracha* & *cinnabaris* rubicundæ, *stibium*que (seu *antimonium*) plumbeo colore nitidum.

Mineral juices.

59. *Mineral juices are bred* (of a various form and use) if so be the mineral moisture do but grow together by any slight alteration.

60. Some there are which may be dissolv'd by water: to wit, every salt thing leaping in the fire and crackling: as common salt every where known, (whether digged or boiled :) alume, of an astringent sweetness: vitriol [*copperas*] of an astringent sourness: nitre somewhat sharp (otherwise call'd the salt of nitre, and when it is clodded salt-peter.

61. Others there are that will be inflamed by fire: to wit, any fatness of the earth, as well concrete, as liquid: such as is brimstone, very hastily catching fire, and also petrol, flaming a-far off: and clear amber, and the most fragrant amber-grease, and other hill-slimes not of one sort.

62. Others that may be crumbled to dust, and turned into paint: white arsenick, yellow orpin, sandarack and sinoper ruddy; and stibium (or antimony) bright with a leaden colour.

CAP. IX.

*Metalla.**Metalls.*

63. Quando mineralis liquor (percolatus multifariam) conduratur in tantam soliditatem, ut non liqueſcat, niſi acerrimo igne, mox tamen rurfum conſiſtat, conſit indè *metallum*, flexile ac ductile.

64. *Plumbum* eſt crudiffimum; è quo paratur *minium*, pro picturis; & *ceruſſa*, pro emplaſtris; & *lythargyrum*, pro incruſtatione ſcſtilium.

65. *Stannum* eſt excoctius, & paulò durius; *ferrum* duriffimum, arroditur tamen ferrugine: ſed quando depuratur, magisque etiam eduratur, fit *chalybs*.

66. *Cuprum* obducitur æruginè: *cadmiæ* vero commixtum fit *orichalcum*: melius fundi quam tundi aptum, ob ſuam friabilitatem.

67. *Argentum* eſt purius iſtis: habet nihilominus ſuas ſcorias.

68. *Aurum* eſt puriſſimum, idcirco ponderoſiſſimum: præfertim *obryzum*: quod immiſſum catillo vel centies, deperdit nihil ſubſtantix, nec ſentit ullam rubiginem.

69. *Talcum* eſt etiam metallaris naturæ, quod tamen nec

63. When the mineral liquor (having bin ſundry wayes ſtrain'd) is hardned into ſuch a ſolidity, that it doth not melt without a moſt vehement fire, yet by and by again it ſtands and thickens, from thence is made a flexible and ductil metal.

64. Lead is the raweſt, out of which is got vermillion [red-lead] for pictures: & ceruſe [white-lead] for plaiſters: and litharg for the glazing of pots.

65. Tin [pewter] is more excocted, and a little harder: iron is the hardeſt, yet it is fretted with ruſt: but when it is purify'd and is more hardned, it becomes ſteel.

66. Copper is cover'd with green ruſt [verdegreaſe:] but being mixt with oar is made latton, better to be caſt then to be hammer'd; becauſe of it's brittleneſſ.

67. Silver is more pure then thoſe: yet nevertheleſſ it bath its droſſ.

68. Gold is the moſt pure, therefore the moſt weighty [maſſy:] eſpecially the beſt and fineſt: which put into the crucible even an hundred times, loſeth nothing of it's ſubſtance, nor doth it feel any ruſt.

69. Talck is alſo of the nature of metals, which yet doth not endure liqua: i

liquari patitur, nec malleari ob indomabilem duritatem: cum ex aduerso argentum vivum nunquam durefcit: liquet enim femper, licet nullam rem humectet, aut madefaciat.

70. *Electrum* est mixtura metallorum.

to be melted, nor to be hammer'd because of it's untameable hardness: when on the other side quick-silver never grows hard; for it is alwayes moist, although it wettereth or moisteneth nothing.

70. *Electrum* [amber] is the mixture of metals.

C A P. X.

Lapides vulgares & pretiosi.

Vulgar and precious Stones.

71. *Lapis* est indurata terra, qui comminutus, dicitur arena: hæc autem crassior, glarea.

71. A Stone is earth hardned, which being ground small, is call'd sand [grit:] but this being groffer [coarser,] gravel.

72. *Tophus* est arenaceus & scaber: *pumex*, multicavus & spongiosus: *lapis scissilis*, lævis & atricolor (inservit scriptoriis tabellis, straturisque tensorum:) *phengites* fissilis est in pelucidas lamellas: *calcareus* ustulandus in calcem & gypsum: *bituminosus* inflammabilis & exustilis.

72. The sand-stone is sandy and rough: the pumice is full of holes, and like to a sponge: the slate is smooth and of a black colour, (it serves for writing tables and covering of houses:) Ilang-glass may be cleft into clear thin plates: the lime-stone is to be burned into lime and plaister: the brim-stone may be set on fire and burned.

73. *Silice* elidimus ignem: cote acuius ferramenta retusa: *coticula* probamus metalla: *magrete* attrahimus ferrum: *hematite* sistimus sanguinem: *smirrite* scindimus vitrum.

73. With a flint we strike fire: we sharpen blunt tools with a whet-stone: we try metals with a touch-stone: we draw iron with the load-stone: with the bloud-stone we stanch bloud: with an emerald we cut glass.

74. *Saxum* est major lapis, jacens humi, sive exstet, sive lateat: *scopulus* & *cantes*, prominent: *prædurus*, & tamen læ-

74. A greater stone lying along on the ground, whether it stands out, or lies hid, is *saxum*; sticking out, a rock and crag [cliff,] if very

vigabilis,

vigabilis, marmor dicitur.

75. Lapillus exiguus lucens & micans, gemma dicitur: si habet nubeculam aut scabritiem, vitiosa est.

76. Eximix gemmæ sunt, carbunculus, flammeus: adamas, prænitidus: hyacinthus, aqueus: smaragdus, viridis: jaspis, subviridis, (interpunctus tamen maculis sanguineis;) sapphirus, cærulea: topazius, aureus: rubinus, sanguineus.

77. Paulò viliores sunt, sarda (nunc carniolus) & granatas, uterque rubens; achates quodammodo croceus.

78. Crystallus reperitur in lapidosi antris, (formâ hexagonæ stirix,) margaritæ (uniones in ventribus concharum: corallium est marina arbuscula, petrx subaqueæ adnascens; in aurâsq; protracta lapidescens, ac rubescens.

hard, yet such as may be made smooth, 'tis call'd a marble.

75. A small little-stone shining and glistering [glancing] is called a jewel: if it hath a little cloud [speck,] or roughness, it is naught.

76. The carbuncle, which is of the colour of flame; the bright [sparkling] adamant [diamond:] the waterish jacinth: the green emerald: the jasper, somewhat green, (yet speckt with bloody spots;) the azure [blcw] sapphire: the golden topaz: the bloody ruby: are all choice gemms.

77. The sarda (now the cornelian) and the garnet, both red; the agate in a manner saffrony, are somewhat baser [cheaper.]

78. Crystal is found in stonie holes, (in the form of a six-corner'd isle,) pearls in the bellies of shell-fishes: coral is a sea shrub, growing to a rock under the water, and being drawn forth into the air, grows hard as a stone, and red.

C A P. XI.

Stirps in genere, & fungi in specie.

A plant in general, and toadstools in special.

79. Stirps protuberat è terra, cui inhærens radice, germinat reliquo corpore in aërem, imbibensque humorem fibris, eúmque convertens in succum, & digerens, alescit, vigescit, virescit: destituta succo lar-

79. A plant [stem] bumps forth out of the earth, whereto cleaving by it's root, it shoots out with the rest of it's body into the air, and sucking in moisture by it's tawes [strings,] and turning it into juice, and digesting it, it thrives, looks fresh, and grows

B

guescit,

guescit, flaccescit, marcescit, arefcit.

80. *Fungus* est rudimentum plantæ: radicescit deorsum debiliter, caulescit quidem sursum, non tamen frondescit, sed concorporatur in orbicularem massam molliculam, infernè striatam.

81. *Tuber* (infimum fungini generis) continet se sub terra, nec extuberat foras, nec radicat infra se, obtegens se tantum corticella: unde dicitur *callus terræ*.

82. *Fungorum alii sunt edules*, (præstantissimi eorum *bolleti*, *capreoli*, *rufuli*, *spongiolæ*, & *piperites*, quorundam *lautitiæ*;) *alii virulenti & noxii*, ut *muscarii*, *pulverulenti*, & plerique alii.

83. *Vera stirps* habet radicem fibratam, stipitem corticosum, ramusculos foliosos, plerumque brachiatos: quarum minores (quotannis emorientes & renascentes) nominantur *herbæ*: grandiores (& perennantes) *arbores*: mediæ proceritatis (& durationis) *frutices*.

green: wanting that juice, it fades, flags, withers, dries away.

80. The toad-stool is the first draught of a plant; it takes root downward, but weakly, it stalks upward indeed, but doth not leav, but is cluster'd into a softish round lump, straked [ridged] on the lower side.

81. A puff (the lowest [meanest] of the toad-stool kind) contains it self under ground, nor doth it swell forth, nor root below it self, covering it self only with a thin rind: whence it is called the brawn of the earth.

82. Of toad-stools some may be eaten, (the best of them are mushrooms, goats-beards, the reddish ones, the spongy ones, and the pepper-tasted ones, some mens dainties:) others poisonous and hurtfull, as fly-bane, fuffs-balls, and severall others.

83. A true plant hath a tawy root, a rindy stump, leafy branches, and those commonly armed: whereof the lesser sort (every year dying and springing out a-new) are named herbs: the greater sort (and that last the year about) trees: those of a middle stature [talness, size] (and duration) [lastingness] shrubs.

C A P. XII.

Herbæ, herbaceique fructus.

Herbs, and herby fruits.

84. *Herba* innititur cauli suo (simplici vel multiplici,

84. An herb leans upon it's stalk (either single or several, whence unde

unde unicaulis vel multicaulis dicitur) est vel alimentaria, vel coronaria, vel medicamentaria.

85. Ex alimentariis sunt (nec enim omnes esitamus) primò sponte nascens gramen, viridans solum, non sementans: dehinc sativa, olera, & fruges, ferentia semen & florem, aliqua etiam fructum.

86. Gramineæ herbæ sunt, muscus, utilis oppilandis rimis: carex, molesta fœniscis acie suâ: centinodia (polygonum) serpens humi: trifolium, aliaque infinita.

87. Olera nobis præbent ad comesturam folia, vel radices, aut fructus oleraceos.

88. Folia præbet lactuca, artiplex, &c. imprimis verò brassica: quæ prius sata, post transplantata, fit capitata: succrescens verò in caulem altiorum, & extenta folia, dicitur crambe: sed asparagus dat thyrsos, scolymus capitella.

89. Longiusculas radices suppeditant, rapum, naphus, raphanus, quæ alben; pastinaca, quæ pallet; siser, quod flavet; betta, quæ rubet: at bulbosas radices dat cepe, allium, porrus: (hæ bulbaceæ habent loco foliorum thallosi) resolviturque

it is said to be of one stalk or of many,) it either serveth for food, or for garlands, or for physick.

85. Those that are for food (for neither do we use to eat all) are first grafs growing of it self, onely green, not bearing seed: secondly things sown, pot-herbs and corn-fruits, yeilding seed and a flower, some also fruit.

86. Grassy herbs are, moss, good for stopping of chinks: sedge, troublesome to mowers [hay-cutters] with it's keen edge: knot-grass creeping along the ground: trifolie, and infinite others.

87. Pot-herbs afford us for eating, either leaves, or roots, or fruits belonging to pot-herbs.

88. Lettice, orange, &c. yield leaves, but especially cole-wort: which being first sown, then transplanted, becometh headed: but shooting up into a higher stalk, and longer leaves, is called a cabbage: but sperage [asparagus] gives stalks, the artichoke little heads.

89. The rape [turnip,] the navew, and the radish, which are white; the parsnip, which is pale; the skirwit, which is yellow; the beet, which is red; afford roots somewhat long: but the onion, garlic, leek give bolled roots: these of the bolled kind have sharke instead

bulbus cepæ in tunicas, *bulbus allii* & *porri* in nucleos.

of leavs; and the boll of the onion is resolv'd into coats [pills,] the little boll of the garlick and leek into cloves.

90. *Fructus oleracei*, *cucumeres*, *melones*, *pepones*, sunt ferè cylindraceâ formâ: quorum maximum genus, *cucurbita* est. *Fragaria* dat fraga.

90. Pot-herb fruits, Cucumbers, melons, pompions, are almost in the form of a rowler: of which the greatest kind, is a gourd: the strawberry-bush giveth strawberries.

91. *Fruges* adferunt grana: *spicata* quidem in *spicis*, *paniculata* in *paniculis*, *siliquata* in *siliquis*: quarum istæ & illæ *frumenta* dicuntur, hæ *legumina*.

91. The fruits of the earth bring grains [kernels;] those which are eared in ears, those which are bull'd in hulls, those which are shal'd in shales: of which the first and second are call'd corn, these last pulse.

92. *Frumenta* erigunt se in culmum, intestinum geniculis, cacuminant verò se, aut in *spicam*, foventem grana glumis, præmunientemque aristis (quanquam sunt & muticæ) ut *trititum*, *hordeum*, *ador* (*spelta*, *zea*,) *trititum Indicum*: aut in *paniculam*, completentem *granula fasciatim*, ut *avena*, *oryza*, *milium*, *panicum*, *fagopyrum* (*frumentum Saracenicum*.)

92. Corn raiseth it self up into a blade; jointed with little knots, but it coppeth it self, either into an ear, which keeps the grain warm with husks, and fenceeth it with beards (although there are also some naked, without beards [hawns]) as wheat, barley, bread-corn [spelt,] Indian maiz: or into a hull [hose,] lapping up the kernels as in a swath-band, as oats, rice, millet, panick, beech-corn [buck] (*Turkey wheat*).

93. *Legumina* habent scapum debiliorem, tamen etiam geniculatum; pro *spicis* autem *siliquas*, includentes grana *ovalibus*, ut videre est in *faba*, *piso*, *ervo*, *phaseolis*, *lupino*, *vicia*, *lente*, *cicere*.

93. Pulse hath a weaker stalk, although knotted too; and in stead of ears, shales closing in the grain in cods, as we may see in the bean, pease, oar [the red pease,] Welsh-pease, lupin, vetch, lentil, chick-pease.

94. *Additamenta frugum*

94. Flax, hemp, and the nettle
sunt,

sunt, *linum*, *cannabis*, & *urtica*,
stamine commendabiles.

95. *Ad escarias pertinent
condimentariæ* : quæ conditio-
ni dant aut folia ; ut *acetosa*,
endivia, *nasturtium*, &c. *aceta-
riis* servientia; aut granula, ut
sinapis, *cuminum*, *carum*, *are-
thum*, *anisum*, *fœniculum*, *cori-
andrum* ; aut flores, ut *crocus* ;
aut radices, ut *raphanus major*,
calamus aromaticus, *galanga*, *ze-
doaria*, *zingiber*, &c.

96. *Coronariæ herbulæ* sunt
floridæ & *odoratæ*, è quibus
vient *serta*, *corolla*, *servias*, pro
olfactoriis : nimirum *viola*,
peonia, *caryophyllus*, *amaranthus*,
amaracus (*majorana*), *lilium*,
tulipa, &c. *Isatis*, (ex qua con-
ficitur *Indicum*) & *rubia*, *tin-
ctoriæ* sunt.

97. *Medicamentosarum* ali-
quæ sunt *hortenses*, ut *hyssopus*,
levisticum, *mentha*, &c. aliquæ
sylvestres, ut *angelica*, *lilium*
convallium, *scolopendrium*, &c.
cæteræ ferè *campestres*, *betoni-
ca*, *centaurium*, *cichorium*, *enula*,
melissa, *plantago*, &c.

98. *Aloë*, *helleborus*, *rha-
barbarum*, *sena*, sunt *purgantes* :
aconitum, *cicuta*, *napellus*, *ve-
nenatæ*, radicibus eruncandæ :
capitulum nigri papaveris vu-
neratum, destillat *opium*, quod

are appurtenances of corn-fruits,
commendable for yara.

95. To those that are for food
pertain such as are for sawce :
which afford for cookery, either leaves,
as sorrel, endive, water-cresses, &c.
serving for sallets ; or little grains,
as mustard, cumin, caraway, dill,
anise, fenil, coriander; or flowers,
as saffron ; or roots, as the carot,
calamus, galingale, zedoarie, gin-
ger, &c.

96. Garland-herbs are flowry
and sweet, of which they wreath gar-
lands [coronets,] chaplets, and
nose-gays for posies : to wit, violet,
piony, gilly-flower, flower-gentle,
marjoram, the lily, tulip, &c.
woad, (out of which is made Indico)
and madder, belong to dyers.

97. Of the medicinal herbs, some
are garden ones, as hyssop, lovage,
mint, &c. some wild herbs, as an-
gelica, the lily of the vallies, stone-
wort [finger-fern,] &c. the rest
generally field-herbs ; betony, cen-
tury, succory, elicampane, ho-
ney-suck'e, plantain, &c.

98. Aloes, hellebore [neez-
wort,] rhubarb, sene, are purging :
libbards-bane, hem'ock, wolfe-
bane, are poysonous, to be plucked up
by the roots : the head of a black
poppy being wounded [gashed] distil-

vim habet soporandi, & stupefaciendi, imò & enecandi.

99. Postremò, quædam herbe innascuntur aquis, & superpatant: ut *alga marina*, *lens palustris*, *tribulus aquaticus*; sed *fistulosa spongia*, sub aqueis faxis supernata, etiam inde exempta, bibula est.

leth opium, which hath the power to make men sleep, to benumm the senses, yea to kill outright.

99. Lastly, some herbs grow in the water, and swim on the top: as seaweed, ducks-meat, reits; but the pory sponge, growing on rocks that ly under water, being also taken thence, is a soaker.

C A P. XIII.

Frutices, fruticeque fructus.

Shrubs, and fruits belonging to shrubs.

100. Stirps lignescens, & multiplice caudice fruticans, appellatur frutex, quorum notiores tibi referam.

100. A plant growing wood, and sprouting out [budding forth] with several stems is call'd a shrub, of which the more known ones I shall relate unto you.

101. *Corylus* fert nuces avellanas; *prunellus*, pruna filvestria; *sambucus*, baccas sambuceas; *paliurus*, baccas paliuri; *rosa*, rosas; *canirubus*, agrestes rosas, & postea baccas cyrosbati.

101. The hazle tree beareth hazle nuts; the bullace tree, wild bullace; the elder tree, elder berries; the holly tree, holly berries; the rose tree, roses; the eglantine, wild roses [cankers,] and afterwards eglantine berries [hips, haws.]

102. *Vinifera vitis* profert vinaceas uvas; *spinifera vitis*, uvas spinas, (crespinas;) *oxyacantha*, berberes; *ribes*, *S. Johannis* baccas; *rubus* (humirubus,) mora rubi; *rubus Idæus*, mora rubi Idæi; *capparis*, cappares.

102. The wine-teeming vine yieldeth winish grapes, the goos-berry tree, goos-berries [scaps, sea-berries;] the barberry bush, barberries; the riberry bush [bastard currant tree,] *S. John's berries*; the bramble, blackberries; the rasp-[hind-]berry bush, rasp-[hind-]berries; the caper-shrub, capers.

103. *Ceratonia* dat dulces liquas; *cinnamomum*, cinna-

103. The bean-tree giveth sweet shales [carobs;] the cinnamon-tree; mum,

mum; *glycyrrhiza*, mellitam radiculam: sed *hedera* arborescens exedit eas.

104. *Balsamum*, odoratissima arbuscula, si inciditur vitreis ossibusve cultellis, (nam ferro incisa emoritur) eliquat *opobalsamum*, succum pretiosum auro.

105. *Gossypium* fert quiddam non ab simile nuci, quæ dehiscens, detegit circa nucleos glomum lanæ inculcatum: quem redordiri, & inde conficere lina *gossypina*, est muliebris labor.

106. Isti palustres etiam sunt fruticosi: *juncus* palmipedalis: *scirpus* (canna) tribubitalis, gerens in summitate typhas, qui cum sit enodis & mollicellus, texuntur ex illo *scirpeæ*, *canistra*, *mattæ*: tandemque lignosa & nodosa *arundo*.

107. Quæcunque paulo minor sunt fruticibus, *suffrutices* vocantur: ut *ruscus*, & reliqui *cardui*; itemque *ebulus*, *erica*, *nardus*, *lavendula*, *ruta*, *salvia*, *rosmarinus*, *absinthium*, *artemesia*, & *myrtillus*, ferens nigra & rubra *myrtilla* seu *vaccinia*, &c.

cinnamon-bark; the *lychorish*, a little root as sweet as honey: but the ivie climbing up trees eateth out the hearts of them.

104. The balm [*balsom-tree*], a most sweet shrub, if it be cut [slit] with knives made of glass or bone, (for being gasht with iron it dyes) droppeth balsom, a juice more precious [dear] then gold.

105. The cotton-tree bears somewhat not much unlike a nut, which gaping [opening] discovers about the kernels a little bottom [ball] of wooll thrust into it [stampt in:] which to unweave [unravel], and of it to make cotton yarn [threads] is womans work.

106. Those fenny [marshy] ones are also shrubby: the rush, of a foot and an hand-bredth in height: the bulrush (care) three cubits high wearing on the top downy tufts or tassels [cats-tails,] which seeing it is free from knots and softish, paniers, baskets, matts are made thereof: and finally the reed which is hard like wood and knotty.

107. whatsoever are somewhat smaller then shrubs, are called under-shrubs: as knee-holm [butcher-broom,] and other thistles; also wall-wort, heath [beather,] spikenard, lavender, rue (or herb-grass,) sage, rosemary, wormwood, mugwort, and myrtle, bearing black and white myrtle-berries [whurtle-berries] or bill-berries, &c. B 4 CAP.

Arbores, arboreique fructus.

Trees, & fruits belonging to trees,

108. Stirps in altum ex-
crescens, & è stipite expan-
dens robustos ramos, obtegéns-
que se frondibus, arbor est,
circumtecta cortice: sub quo
reperies librum & alburnum;
mox ligni pulpam, & in peni-
tissima pulpa medullam.

108. A plant growing upon high,
and out of its stock [stump] display-
ing strong boughs [arms,] and cover-
ing it self with green leaves, is a tree,
covered round with a bark; under
which you will find a rind [the peel,
inward bark,] and a white sap; after
that the pulp [body, substance] of the
wood, and in the most inward pulp
the pith,

109. Quædam habent li-
gnum interveniis distinctum,
ideoque fissile; alix lentum &
flexile; alix rigidum & fragile,
pro vario usu.

109. Some trees have their wood
[timber,] parted between with veins
[grains,] and therefore such as may
be cleft; others pliant [gentle] and
limber; others stiff [tough] and brit-
tle, according to their several uses.

110. Folia sunt omnibus
vulosa, multis lanuginosa, ple-
risque per ambitum crenata
(serrata:) decidunt sub hye-
mem, vere regerminant, præ-
terquam gummosis, buxo, taxo,
& aliis, quæ semper virent.

110. All of them have leaves full
of veins [streaks;] many mossy
[downy;] the greatest part notched
round about: they fall off a little be-
fore winter; they bud forth [grow] a-
gain in the spring, save only gummy
ones, the box tree, yew tree, and
others, which are alwayes green.

111. Quædam fiunt umbri-
feræ, ab exuberante copia vi-
ridantium foliorum, opacantes
viretæ: ut tilia, platanus, acer,
fraxinus, ulmus, & cæteræ lati-
foliæ.

111. Some are shady, by reason
of the great plenty of their verdant
leaves, shadowing [darkning] the green
bowers: as the linden [lime,] the
plane, the maple, the ash, the elm,
and the rest that are broad-leaved.

112. Steriles ministrant vel
pabulum fœco; ut alnus, betula,
figus, orans, populus alba, popu-

112. The barren trees, either afford
fuel for the hearth [fire:] as the al-
der, the birch, the wild ash, the white

lus nigra; vel materiam ædificiis: ut *quercus*, *pinus*, *larix*, *cedrus*, &c. vel vimina, quorum contextione corbes & crates fiunt, ut *salix*, *ligustrum*, &c.

poplar, the asp; or timber [materials] for buildings: as the oak, the pine, the larch, the cedar, &c. or pliant twigs [osiers,] by wreathing of which together baskets and hurdles are made; as the willow [withie, fallow,] privet [prine,] &c.

113. *Pomifera* sunt notissimæ fructiferarum, habentes fructum extrinsecus intectum molli corticellâ, intus vel granatum vel ossiculatum.

113. Of fruit-bearers the most noted are those that bear poma, having their fruit covered on the outside with a little tender rind, & the inside either kernel'd or stoned.

114. *Granata* poma sunt, *figus*, *pyrum*, *malum* (quod vel vulgare est, vel aureum, citrium, *Punicum*, *Cydonium*) *mespilum*, *sorbum*: ossiculata sunt, *cerasum*, *prunum*, *Persicum*, *Armeniacum*, *oliva*, *cornum*.

114. The poms cored [with kernels in them] are the fig, the pear, the apple (which is either the common one, or the orange, the pom-granat, the pom-citron, the quince) the medlar, the service: those with stones in them are the cherry, the prune [plum,] the peach, the apricock, the olive, the cornel.

115. *Proximæ* pomiferis sunt *nucifera*, quæ sub cortice duro occultant nucleum inclusum putamini, ut *juglans*, *amygdalus*, *castanea*; sed è *palma* accipies dactylos, ex *abiete* strobilos, è *quercu* gallas, è *subere* & *ilice*, glandes; è *fago* glandes faginas.

115. Next to the pom-bearers are the nut-bearers, which under a hard shell hide a kernel shut up [inclosed] in a peel [skin;] as the walnut, the almond, the chefnut; but from the palm-tree you will receive dates, from the fir fir-nuts, from the oak galls [oak-apples,] from the cork-tree and stone-oak, acorns; from the beech, beech-apples [mast.]

116. *Baccifera* sunt, quæ racematim ferunt baccas molliores, *morus*, *laurus*, *sorbus silvestris*, &c.

116. The berry-bearing trees are those which bear softer berries in clusters, the mulberry-tree, the laurel or bay-tree, the wild service, &c.

117. *Aromatifera* sunt nobis

117. The spice-bearing trees have innomi-

innominatæ: quæ progignunt piper, caryophylla, nuces myristicas (seu moschatas) macidi inclusas, aliósque odoriferos fructus, è quibus condituras paramus.

118. Resinosæ sunt pinus & picea: è quibus resina exstillat, ex hac autem eliquatur pix & axungia; & lentiscus, ex qua colligitur mastiche; & terebinthus, è qua fluit terebinthina: & quæ myrrham, thus, camphoram, cæteraque gummi exsudent.

119. Vis scire quomodo fructificent? ante omnia surculus gemmat, tùm gemma hians protrudit florem, (in ficu prorumpit grossulus sine flore; in corylo julus ante gemmationem) tandem fructus (petiolo pensilis) crescit, donec maturescat.

120. Arboretum frequens, est silva: quam amœnè viridicatam, dices nemus; densam & inviam, saltum; disraratam & intercisam, recrescientemque, silvam cæduam; opacam & incæduam, lucum: speciatim autem, quercetum, pinetum, betuletum, salictum, &c.

no names with us: which bring forth pepper, cloves, nutmegs shut up in mace, and other odoriferous [sweet-smelling] fruits, out of which we provide comfitures [conserus.]

118. The pine and pitch-trees are full of rosin, out of which rosin doth drop, out of which pitch and tar [grease] are melted; and the mastick tree, from which mastick is gathered; and the turpentine tree, out of which turpentine floweth: and those trees which sweat forth myrrh, frankincense, camphire, & the other gums.

119. Would you know how they bring forth fruit? first of all the young grass [cyon] buddeth, then the gaping bud [krop] thrusteth forth the flower [bloom, blossom:] (in a fig-tree the green fig breaketh forth without a blossom, in a hazle-tree the tassell before the budding) at last the fruit (hanging [dangling] on the stalk [stele]) groweth, until it grow ripe [mellow.]

120. A place thick set with trees, is a wood: which being pleasant and green, you shall call a grove; being thick and unpassable, a forrest; being topped and cropped, and growing afresh, a cops; being shadie and uncut, a thicket: but in particular, a grove of oaks, a grove of pines, a grove of birches, a grove of willows [an osier-ground, &c.]

C A P. XV.

*Animalia in genere, & in specie
rudiora: palpitantia, re-
pentia, serpentia.*

Living Creatures in general, and
in particular the more imper-
fect ones: that pant, or crawl,
or creep.

121. Quod est præditum
vitâ, sensu, & libero motu, est
animal.

121. That which is endued with
life, sense [feeling,] and free mo-
tion, is a living-creature.

122. Vitam accipiunt na-
scendo, continuant nutrican-
do, propagant sui simile ge-
nerando: ideoque sexu discre-
ta sunt.

122. They receive life in being
born, they continue it in being nou-
rished, they propagate it by begetting
their like: and to that end they are
differenced by sex.

123. Sensum exercent (po-
tissimum alimenti causâ) tan-
gendo, olfaciendo, gustando, au-
diendo, videndo.

123. They exercise their sense
(especially for foods sake) by touch-
ing, smelling, tasting, hearing,
seeing.

124. Motum adhibent (ad
prosequendum bonum & fugi-
endum malum) alata volando,
pinnata natando, pedata gra-
diendo.

124. They use [employ] a mo-
tion (for the prosecution of good,
and fleeing [avoiding] of evil) those
that have wings by flying, those that
have fins by swimming, those that
have feet by going.

125. Quando animal se non
movet, tum aut cubat, prostra-
tis membris; aut sedet, sub-
stratis inferioribus, arrectis-
que superioribus; aut stat, to-
tum erectum, super pedes suos
se æquilibrans, aut fulcimento
alicui cõnnitens.

125. When a living creature moveth
not it self [stirs not,] then it either
lies down, its limbs being laid a-
long [flat,] or sits, the lower [hinder]
parts being laid undermost, and the
upper ones [fore-parts] lifted up; or
stands, all on end [straight upright,]
counterpoizing it self upon its feet, or
leaning on some prop.

126. Quædam tamen ani-
malcula promovent se palpi-
tando duntaxat, aut rependo,

126. Yet some little living crea-
tures set themselves forward only by
panting, or crawling, or creeping
vel

vel *serpendo* : cùm sint veluti rudimenta animalis generis ; ut *conchæ*, *vermiculi*, *serpentes*.

127. *Concha*, inclusa conchis testaceis, (quibus caro exsanguis & viscosa arctissimè adhæret) dimovet se paulatim (sub aquis) levi palpitatione: quarum apprimæ sunt *ostrea succulenta*, *concha margaritifera*, & *purpura*, *purpureum* succum evomens.

128. *Tardigrada cochlear* circumfert secum testaceam suam domunculam ; putatur carere oculis, sicut & *limax* : sed habent cornicula, quibus prætentant iter.

129. *Vermes* repunt convolutione & evolutione corpusculi ; è quibus rebus gignuntur, ex iisdem quærentes nutrimentum, erodunt eas : *acar*i ceram, *termite*s carnem, *tineæ* vestes, *blattæ* libros, *teredenes* (coffi) ligna, *lumbrici* uvidam terram, *volvoces* (convolvuli) vitem, *curculiones* frumenta, *crucæ* plantas, *bombyces* mori folia, &c.

130. Sed insecta sunt expeditiora, quibus dati pediculi;

[*sliding on their belly* :] whereas [*seeing*] they are as it were the rude draughts of the living kind ; as shell fish, little worms [*grubs*], serpents.

127. A shell fish, being shut up in houses of shells (to which the flesh being bloudless and slimy doth most closely stick [*cling*]) removeth it self by little and little (under the waters) by a slight panting; of which the chief are the juicy oyster, the pearl-bearing shell-fish, and the purple-fish, casting up a purple-colour'd juice.

128. The slow-pac'd cockle [*snail*] carrieth about with it its shelly lodge: it is thought to want eyes, as also the dew-snail [*slug* :] but they have little horns wherewith they grope out their way.

129. Worms crawl [*trail along*] by the rolling up and down [*riggling to and fro*] of their body; out of the same things whereof they are bred, seeking nourishment, they gnaw upon them: the mites on wax, magots on flesh, moths on garments [*clothes*], book-worms on books, timber-worms [*wood lice*] on wood, earth-worms on moist [*wet, ouxy*] ground, whirl-worms [*the devils gold-ring, caterpillars*] on vines, wieve's [*bowds*] on corn, canker-worms on plants, silk-worms on mulberry leavs, &c.

130. But insects [*small vermin*] are more quick [*nimble*], which have
ut pe.

ut *pediculus* (pedunculus,) *lendum* progenitor; *pulex*, saltator; *ricinus*, canibus infestus; *cimex*, parietum & cubilium præsertim abiegnorum) graveolens perreptator; *oniscus*; adhærens humescentibus muris; & *scolopendra* (dicta centipes, & millipeda à pedum multitudine,) *formicæ* denique circa victum comportandum semper actuosæ; & *aranæ*, tenuissima aranea nectentes, quibus muscis insidientur.

little feet give them: as the louse, the begetter [fire] of nits; the flea, a skipper; the tike [teck,] troublesome to dogs; the punie [wall-louse,] the scurvy-smelling creeper through of walls and lodgings; (especially those that are made of deal-boards;) the lope [blind-beetle] sticking to moist walls; and the furry-bear-worm (call'd hundred-legs, and forty-foot, by reason of its many feet:) finally the ants [pismires, emmets.] alwayes busie [stirring] about carrying [hoording] provision; and spiders, weaving [knitting] most thin cobwebs, in which they ly in wait for flies.

131. *Serpentes*, oblongum corpus adepti, serpunt arcuatâ ejusdem corporis sinuatione: ut sunt, *anguis* communis; *coluber* silvaticus; *natrix* aquaticæ; *aspis* venenosissima; *jaculus* vibrans sese ex arboribus in obvios; *vipera*, quæ sola parit catulos vivos; *amphisbæna* item, porrò ac retrò gradiens: & *basiliscus*, tam nocivus, ut solo visu necet; *draco* denique alatus serpens.

131. The serpents [crawlers] having got a very long body, creep [crawl] on the belly, by an arch'd [crook'd] winding [writting] of the same body: as are, the common snake; the wood-snake; the water-snake; the most venomous [poisonous] adder; the dart-snake, throwing himself upon passengers from trees; the viper, which alone bringeth forth live young; also the two-headed serpent, which goeth forward & backward: and the cockatrice, so hurtfull [mischievous, baneful,] that it killeth onely with its look; lastly the dragon a winged serpent.

132. Solent serpentibus adnumerari, tametsi sint gresfiles; *lascerta*, habens lacertosos pedes; *seps*, huic confimilis, sed minor; *stellio*, maculis a-

132. These use to be reckoned among serpents, although they are such as goe step by step, the lizard, that hath branny feet; the cvet, somewhat like this, but less; the swift [newt]

reolis

reolis picturatus ; & salamandra, tam frigida, ut exstinguat ignem; scorpio denique, flexuosâ caudâ infligens lethiferos ictus.

pictur'd with golden spots [specks;] and the salamander, so cold that it quencheth [puts out] fire; to conclude, the scorpion, with its bending [crook-ed] tail giving deadly strokes.

C A P. XVI.

Aves, aliaque volatilia.

Birds, and other flying creatures:

133. *Aves sunt animantes aëriæ, quæ vibratu alarum & caudæ volant quô volunt: omnes pennatæ, plumatæ, rostratæque: (excepto vespertione, qui pilosus & dentatus est, alâsque membranaceas habet.)*

133. *Birds are creatures that live in the air: who by the clapping [flirting] of their wings and tail, fly whither they list: all of them quilled, feathered, and beaked: except the bat [reer-mouse,] which is hairy and toothed, and hath leathern [skinny] wings.)*

134. *Omnes item bipedes sunt (etiam manucodiata, quam esse apodem falsò perhibebant) sed grandiores ambulant solummodò; minores saltitant tantummodò; mediocres utuntur & incessu, & saltatu.*

134. *They are also two-footed all, (even the bird of Paradise, which they gave out but falsly to be footless [want feet]) but the bigger sort only walk, the lesser only hop; the middle ones use both walking and hopping.*

135. *Rostro petunt cibaria, refeciuntque ingluviem: & quamvis pitissent, nulla tamen mingit, quia humiditas diffuit in plumas vapore plenar.*

135. *They pick up meat with their bill [beak,] and stuff [cram] their crop: and though they sip often, yet none doth piss, because the moisture passeth into their feathers, which are full of vapour [reaking-heat.]*

136. *Nidificant communiter in locis inaccessis: (halcyon dicitur nidulari in ipso pelago, tranquillo tunc æquore:) tùm ponunt ova, (quæ subter testa occultant albumen & vitellum) atque his postea incubando excludunt*

136. *They commonly build nests in such places, where none comes; (the King's-fisher is said to nestle [make her nest] in the very sea, it being then a calm sea:) then they lay eggs, (which under a shell hide the white and the yolk) and afterwards by sitting [brooding] on them they hatch*
implu-

implumes pullos; quos vocamus, dum pipiunt, *pipiones*.

[*discloses*] young ones callow [*unfledg'd* ;] which we call whilst they peep [*cheep, yelp,*] peeping chicks.

137. *Struthio* est maxima alitum, ob vastitatem corporis haud subvolans; *regulus* minima, sepes circumvolitans; *aquila* generosissima, absque nictatione solem intuens; *upupa* despicatissima, cristata quidem, fœda tamen, quippe stercoribus victitans; *pavo* formosissima, speciosam suam caudam subinde rotans, & superbiens; *noctua* deformissima, cum reliquis nocturnis: ut, *bubone* ominoso, *asione* aurito, *ululâ* flebili, *alucone* ferali.

137. The ostrich is the biggest of fowls, who by reason of the greatness of his body cannot fly up; the wren the least, flying about hedges; the eagle the most noble, who without winking looks upon the sun; the lapwing is the most despicable, crested [*tufted*] indeed, yet nasty [*filthy,*] because it feedeth on dung; the peacock the most beautiful, swinging [*whirling*] about her gallant train [*tail*] ere and anon, and brussling [*priding her self;*] the owl the most ugly [*deformed,*] with the rest of the night-birds: as, the unlucky scritch-owl, the great-ear'd horn-coot, the dolefull howler, the deadly leech-owl.

138. Cæteræ volucres sunt vernaculæ, vel advenæ; campestres, vel silvestres, aut aquaticæ.

138. The other birds are either home-bred, or out-commers [*foreigners;*] field, or wood, or water-fowls.

139. Nostræ vernaculæ ruspantur fimeta; exempli causa, *gallus*, certis horis cantitans, & in suo sterquilinio cristam erigens & cucuriens, cum gracillantibus gallinis, totâque gallinacea pullitie: tum gallopavo, gerens in capite carnosam vittam, & sub rostro paleam, irato valdè rubentem, cum sua meleagride: & *columbus* cum columba, pulchelli, si plumipedes.

139. Our home-bred birds [*poultry*] scrape the dunghills; as for example, the cock, crowing at certain houres, and setting up his combe, and clapping his wings on his own dunghill, with the cackling hens, & the whole pullen- [*poultry-*] brood: then the turkey-cock wearing on his head a fleshy fillet [*snout,*] and under his beak a jollop [*juggle,*] which looks very red when he is angry, with his turkey-hen; and the pigeon with his mate [*the dove*] very handsome if rough-footed.

140. De-

140. Domesticis annumeræ, quæ gaudent habitare circa ædes : ut *hirundines*, veris nunciatrices, *passeres salaces*, &c. *monedulas* item, *cornices*, *picas*, & in turribus nidificantes *tinnunculos* : & ex aquaticis, *anser*, atque *anates*.

141. *Campestris* sunt; *alauda*, in ære se vibrans, & cantillans; similisque huic *cassita* *cirrata*; *coturnix* *caudâ curtâ*, (ideoque parùm volitans, & cum vociferatione:) *perdix*, palato gratissima; & *tarda*, *tardivola*; & *grues*, admodum congruè abvolantes; (nempe cuneatim, unâ prævolante.)

142. *Silvestrium* majores sunt; *tetraones furdi*; *phasiani* *discolores*, *attagenes* *coryletis* gaudentes, *columbæ feri*, (*palumbes torquatus*, & *livia rubinodo pede*) *cuculus*, qui cucularinodo se prodit; *castusque tur-*

143. *Minores* distinguimus gustu; *sicedula* enim vescitur ficibus, *merops* apibus, *rubecula* muscis, *curruca* vermiculis; *picus arbores* rostrando, delitescensque bestiolas extrahendo, *isidem*; *turdus* pascitur

140. *Reckon* those for house-birds; which love to live about houses; as swallows, the messengers [which bring news] of the spring, the waton [lustfull] sparrows, &c. also the jackdaws, the crows [rooks,] the pies [py-annets,] and the kestrels that build in turrets: and of the water-fowl, geese [and ganders,] and ducks [and drakes.]

141. The field-birds are; the lark, hovering in the air, and chanting; and like to this the tufted lark; the quail with a short bob-] tail, (and therefore flying but little, and with a cry [noise:] the partridge, most pleasing to the palate; and the slow-flying bustard; and the cranes flying very orderly together; to wit wedge-wise, one flying before.)

142. The bigger sort of wood [wild] fowls are, the deaf bistrards, the parti-coloured pheasants, snipes [snipes, morehens, godwits,] delighting in hazle-grounds, wild doves [culvers,] (the ring-dove [queest,] and the red footed stock-dove) the cuckow, who betrays her self by crying cuckow; and the chaste turtle-dove:

143. We distinguish the lesser sort by their taste [food, diet;] for the great-snapper feedeth on figs, the co'e-mouse [great titmouse, the house] or bees, the robin red-breast or flyes, the titling hedge-sparrow or little worms; the wood-pecker by baccis

baccis juniperinis, (dicitur cacare sibi perniciem, quia viscum pullulascit è ramo quem conspurcat.)

pecking of trees, and pulling out thence little vermin lurking in them; the thrush [mavis, thrushel] feeds on juniper berries, (he is said to dung [mure] himself a mischief, because misfelden [bird-lime] shrowteth forth from the bough which he bedungeth [defileth.])

144. Minime sunt cantrites: ut luscina, suavissima modulatrix; parus, parum minuriens; fringilla, frigore frinniens; galbula, flavescens; rum luteola, visitans semine papaveris; linaria lini; carduelis cardui.

144. The least are the singing birds: as the nightingale, the sweetest tuner; the titmouse, minging [drawing is out] small; the chaffinch [sprink], chirping in the cold; the yellow witt-all; then the gold-finch living on poppy; the flax-finch [toad-flax] on flax; the linnet on thistle-seed.

145. Psittaci, sturni, merule, suescunt imitari humanam vocem; vanellus est cristatus & clamorosus.

145. The parrats [popinjays], stares [starlings], ouzels [black-birds], use to imitate the voice of man; the lapwing [plover] hath a crest [tuffe] and makes a noise.

146. Rapaces sunt carnivore, & solivagæ, quæ prædando uncis unguibus & rostris, alias dilaniant: ut accipiter, qui resupinatus evolat rectâ cælum versus; eique congenere; nisus fringillarius; falco belle oculus; buteo ignavus; milvus pullatorum raptor; vultur, solis morticinis pascens, sicut & corvus.

146. Ravenous birds [birds of prey] are carrion-eaters, and alone-flyers, which in preying with their crooked claws [talons] and beaks, tear to pieces other birds: as, the hawk, which with his face upward flies directly [tows, soars] toward heaven; and his kindred, the sparrow-hawk [the hobby]; the fine-ey'd falcon; the sluggish buzzard; the kite [glead, puttock], a stealer of chickens; the vulture feeding only on dead things [carcasses], as also the raven.

147. Aquaticæ sunt palmpedes (natandi causâ:) ut olor candidissimus; oryxotatus insa-

147. Water fowls are whole-footed (because of swimming:) as the most white swan; the insatiate [greedy]

riabilis (ingluvie sub ipso max
roſtro propendula;) pelicanus
roſtro latiliſſimo; butio, bavis
inſtar mugiens; querquedula
ſemper natans; mergus crebro
urinans, ut & fulica.

148. *Cæteræ piſcivoræ* (non
tamen palmipedes, eoque dun-
taxat circumvolantes aquas)
ſunt; ardea tortili collo; ci-
coria exſtruens ſpiceos nidos
in tectorum pinnaculis; gavia
piſcatrix; motacilla inſeſſe
motitans caudam.

149. *Inſecta volantia ſunt,*
tūm aculeata: apes, veſpæ, cra-
brones; (fuci carent aculeo:)
tūm roſtello fodicantes, ut
muſcæ; inter quas culices, ta-
bani, & aſili.

150. *Cicadæ indicant ſtri-
dore ſuo ſceniſecii tempus;*
locuſtæ ſunt populatricæ ſeget-
tum; papilioes diſſeminatores
camparum; grylli ſtrident no-
ctu; hepioli advolant lucer-
ris.

151. *Cicindele, bruchi, ſca-*
rabæi, ſcarabæi cornuti, can-
tharides, &c. integunt alas va-
ginis.

cormorant (his crop ſtreight bang-
ing down under his bill;) the broad-
beak'd pelican [ſhoveller;] the bit-
torn lowing like a bull: the teal
always ſwimming; the didapper
often diving, as likewise the ſea-gul
[ſen-duck.]

148. The other fiſh-eaters (yet
not whole-footed, and therefore on-
ly flying about the water) are; the
wry-neck'd heron; the ſtork build-
ing neſts of thorns on the tops of
houſes; the fiſhing gull [ſea-cob;] the
wagtail, never weary of wagging his
tail.

149. Flying inſects are, both
 thoſe with ſtings: Bees, waſps, hor-
nets; (the drones are without a
 ſting:) and alſo thoſe that prick
 with a little ſnout, as flies; amongſt
 which are gnats, gad-bees, and
 breezes.

150. The graſhoppers by their
 noiſe ſhow the time of hay-harveſt;
 the locuſts are the deſtroyers of
 corn; the butter-flies are the blow-
 ers of magots [grubs;] the crickets
 creek by night; fire-flies fly to can-
 dles.

151. Glow-worms, palmer-
 worms, chaſers, beetles, horned
 beetles, horſe-flies, &c. hide their
 wings in caſes [ſheaths.]

C A P. XVII.

Pisces, aliaque natatilia.

Fishes, and other swimming creatures.

152. *Pisces* habent loco pedum *pinnas*, quarum remigio natitant; loco colli *branchias*, quibus lympham ore immisfam emittunt, & sic veluti respirant: intus *vesicam* turgidam, ad facilius fluitandum; quæ si rumpitur, perit ad nandum habilitas.

152. Fish instead of feet have fins, by the rowing whereof they swim up and down; instead of a neck, gills, whereby they let out that water which was let in at the mouth, and so they doe as it were take breath: within them a swollen bladder [their swimmer,] that they may the easier float; which if it be broke, their ability to swim is utterly lost.

153. Plerique sunt Squamosi; atque in his femellæ habent ova, masculi testes: alii glabri, lubrici, oblongi, ut *anguilla*, *conger*, *muræna*, *lampæra*, *mustela fluviatilis*, & reliqui de anguino genere.

153. Most of them are scaly; and amongst these the females have spawn [frie] the males milks [rows:]; others smooth, glib [slippery,] somewhat long, as the eel, conger, lamprey, lampern, the fresh-water eel-pout, and the rest of the snakey sort [kind.]

154. Inter fluviaticos maximus sunt, *silurus* bucculentus; *acipenser* mucronatus; *Huso* cartilagineus, grandescens usque ad longitudinem viginti quatuor pedum: minimi vero, *apua*, *cobitis aculeata*, *cobitis barbata* (fundulus,) *gobius*; dehinc *alburnus*, *perca fluviatilis*; *trutta*, *thymallus*; *barbus* (mullus,) *mugil*, &c.

154. Among the fresh-water [river] ones, the greatest are, the wide-mouth'd flounder, the pointed Surgeon, the gristly lax, growing to the length of four and twenty feet: the least are the dace, the pointed cobitis, bearded cobitis (groundling,) gudgeon: next to these the bleak, the brook-perch, the trout, the smelt, the barbel, the mullet, the pollard, &c.

155. Lacustres ac piscinales sunt; *lucius*, *carpio*, *ciprinus* latus, *tinea*, *coracinus*.

155. The pond-fish and pool-fish are, the pike, the carp, the broad bream, the tench, the gilt-head.

156. *Pelagici sunt; haleces, quæ salitæ in tinis afferuntur; & passeræ, qui arefacti differruntur; & asellus, qui esui non est nisi contusus; & salmo in flumina exspatians; & raia, pinnis in orbem expansis; & quidam volatici pisces, &c.*

157. *Omnes isti sunt ovipari; ceti autem vivipari; ut phoca, delphinus, orca, stator, & balæna, quam scribunt reperiri trecentarum ulnarum: habet tamen hostem xiphiam, qui assultans, eam cuspidatissimo rostro compungit, tandemque conficit.*

158. *Sunt & araneæ marinæ, nec sanguinem habentes nec spinas, (mollia aquitilia vocant) ut polypus, octo brachiis prælongis metuendus; loligo, emittens atramentalem succum, nè videatur, & capiatur.*

159. *Cancræ sunt natatilia crustata, denis pedibus binis quæ chelis instructa; cammari sunt cancræ prægrandes (tricubitales;) carabi rotundi; squillæ, minutuli cancelli.*

160. *Insecta elementi hu-*

156. *The sea-fish are; herrings, which being salted are brought to us in barrels; and plaice, which being dried are carried about; and the aberdine [stock-fish,] which is not fit to eat unless it be well beaten; and the salmon, enlarging his walk into rivers: and the thorn-back [skate] with his fins spread out round: and some flying fishes, &c.*

157. *All those are egg-breeders [spawners;] but the sea-monsters are live-breeders: as the sea-calf, dolphin, the ork, the physeter, and the whale; of which they write there are found of three hundred yards long: yet the sword-fish is his enemy, who rising up pricks him with his sharp-pointed snout, and at last makes an end of him.*

158. *There are also sea-spiders, having neither blood nor bristles [fins] (they call them soft water-creatures) as the pourcoutrel, who is to be feared for his eight very long clutches [cleys,] and the cuttle throwing out an inky juyce, lest he should be seen, and taken.*

159. *The crevisses are swimming creatures shell'd, furnish'd with ten feet and two cleys; the lobsters are huge great crevisses, (of three cubits;) the crabs round ones; the shrimps and prawns are very little craw-fish.*

160. *The insects of this element*

jus sunt; *hirudo*, affigens se cuti nudipedis, exsugensque linguâ bisulcâ sanguinem; *tipula*, tantâ levitate super aquam cursans, vel stans, ut non defidat; *seta aquatica*, equinum crinem referens.

are; the horseleach, fastning it self to the skin of one that is bare-footed, and sucking out the blood with its two-fang'd [forked] tongue; the water-spider running or standing so lightly on the water that it sinketh not; the water-bristle resembling an horse-hair.

C A P. XVIII.

Quadrupeda; primum mansueta pecora & jumenta.

Four-footed creatures; first tame cattle and labouring beasts.

161. *Quadrupeda* progenerant fœtum vivum, aluntque lacte uberum; grandiora unicum, & rariùs; minutiora plures, & frequentius.

161. Four-footed creatures bring forth live young ones, and nourish them with the milk of their udders; the greater sort but one, and more seldome; the lesser sort more, and more often.

162. Pro integumento habent, vel pilos, vel villas, vel lanam, vel setas, vel squamas; pedes autem vel digitatos, armatos unguibus, (ut canis, &c.) vel ungulatos; & quidem ungulâ vel solidâ (ut equus) vel bifidâ (ut bos.)

162. For covering they have either hairs or shagged locks, or wool, or bristles, or scales; and feet either finger'd, armed with nails [claws,] (as the dog (and bitch) &c.) or hoofed; and that either with a solid [whole] hoof (as the horse) or cloven (as the ox.)

163. Quædam sunt cornuta, caréntque superioribus dentibus; (quia materia horum transit in corvæ;) quocirca ruminant cibum, habéntque quatuor ventriculos contiguos, rumen, reticulum, eschium, omasum; demúmque intestina; & adipis loco sebum.

163. Some are horned, and want upper teeth; (because the matter [stuff] of them passeth into horæ;) wherefore they chew the cud, and they have four ventricles, the cud, the paunch, the tripe, the hony-tripe [the cawl;] and at last the entrails [guts,] and sewer [tallow] instead of fat.

164. Quædam sunt mansue-

164. Some are tame, living wi-

ta, sub hominum curâ viver-
tia pecora & jumenta : alia fe-
rocia sunt, feræ refugientes ho-
minem, quæritantésque sibi
ipsis pastum, & se ab dentes per
loca latebrofa.

165. Pecorum maximus est
taurus, paleari pendulo nota-
bilis ; vacca prægnans dicitur
forda ; nondum fœta, juvenca ;
vitulus grandescens, buculus,
vel bucula.

166. Minorum pecudum
sunt, oves lanosæ, cum agnis
subrumis & abrumis, ariet-
ibusque petuleis ; qui vexati a-
rietant, etsi cornibus mutili,
quales sunt sectarii verveces.

167. Hirsutus hircus ca-
stratione fit caper, hic & illic
arunco spectabilis ; petulan-
tes bædi circumcursant ca-
pram.

168. Setosi sunt porci, qui
necdum castrati vocantur ver-
res ; exsectii, maiales ; porcelli,
sugentes scrofæ sumen & co-
lostram, nefrendes ; depulsi à
mamma, delici.

169. Jumentum est pecus
operarium seu veterinum ; in-
ter quæ maximus gibbosus ca-
melus, quò vehiculi vice utun-
tur ; huic proximus equus, ju-
bâ insignis, licet ferox, calc-

der the care of men, as cattle and
labouring beasts : others are savage
[fierce,] wild beasts ; flying from
men, and seeking food for themselves
in lurking places.

165. The bull is the biggest of
cattle, remarkable for his dangling
dewlap : a cow big with young is cal-
led a cow with calf ; one that was
never yet with calf, a heifer ; a calf
growing big, a bullock, or steer.

166. Of the lesser cattle are the
fleecy [woolly] sheep, with their suck-
ing and weaned lambs, and the but-
ting rams, who being vex'd doe butt
although they are maimed of their
horns, such are the gelt bell-wethers.

167. A buck-goat by gelding is
made a cheverel, fit to be look'd at
for his beard here and there ; the
wanton kids run about the she-goat.

168. Pigs [swine] are bristly,
who being not yet gelded are call'd
boor-pigs ; being lib'd [spaid] bar-
row-hogs ; the little pigs, sucking
the teats and boistings of the sow
that hath farrowed, grees ; being
weaned they are shotes.

169. A jument is a beast for
work or burden [carriage ;] amongst
which, the bunch-backt camel is the
greatest, which they use in stead of
a wagon : the next to this is the
horse, fair to see [goodly] with his
trans,

rans, effrenis & indomitus, domatur tamen, ut seſſori obtemperet : præſertim cantherius factus, ubi & hinnire deſinit ; ſed pandus aſellus ſervit oneri bajulando , rudique cum ab agaſone vapulat.

mane, although fierce [metald,] winning [kicking,] unbridled and unruly, yet is tamed [broken] to obey his rider : eſpecially being made a gelding, when he gives over neighing ; but the ſhrinking [ſaddle-backt, bow-backt] aſs ſerves for the bearing of burden, and brayeth when he is beaten by the driver [muleter.]

170. Canes & feles ſunt nobis cuſtodes : illi pecoris, contra fures ; hi penoris, contra mures.

170. Dogs and cats are our houſe-keepers ; thoſe of our cattle, againſt thieves ; theſe of our proviſion [viſtuals,] againſt mice.

171. Canis enim prodit advenam latratu ; improvidèque appropinquantem mordet , (præſertim catenarius) vel ad minimum baubatur ; ſi irrites, diducto riſtu ringitur ; ſi percutias, quiritatur : ſed rabidus morſu reddit hydrophobos, latrantes more catellorum.

171. The dog [or bitch] betrayeth [diſcovereth] the ſtranger by his barking ; and biteth him that unadviſedly draweth too near, eſpecially being chained [the bandog]) or doth at leaſt baugh ; if you anger him, he gurns [grins] with his chaps wide open ; if you ſmite him, he yelpeth [whineeth, moaneth:] but being mad with a bite he makes men to be afraid of water, and bark juſt like whelps [puppies.]

172. Catulus perreptans angulos domus odoratur ex muſcerda mures (quos muſcipula non capit,) tùm inſidioſè captat, diſcerpit, devorat.

172. The cat creeping up & down the corners of the houſe by the mouſe-dung ſcents out the mice (which the mouſe-trap doth not take,) then craftily catches them, tears them in pieces, devours [cats] them.

C A P. X I X.

Quadrupeda fera : & amphibibia.

Four-footed wild-creatures ; and thoſe that live as well in water as on land.

173. Feræ majores dicuntur.

173. The bigger beaſts are called

tur bellue ; crudeliores, bestia. great beasts; the more cruel, ones savage beasts.

174. *Elephas*, maxima belluarum, dicitur terreri aspectu musculi, grunntuque porcino : habet duos dentes quadricubitos, qui dant candidissimum ebur, pabulum verò attrahit proboscide.

174. The elephant, the biggest of great beasts, is said to be affrighted at the sight of a little mouse, and the grunting of a hog : it hath two teeth of four cubits length, which afford the whitest ivory, but he draweth his food [fodder] to him with his trunk [or long snout.]

175. *Rhinoceros* est corpulentia ferè æquali, indutus squamis ossis, & gerens in naso acutum cornu : quò solet transfodere ventrem barri, dum cum illo præliatur.

175. The Rhinoceros is almost of an equal bulk, arrayed with bony scales, and wearing on his nose a sharp horn : wherewith he is used to pierce [dig thorough] the belly of the elephant, whilst he skirmageth with him.

176. Dehinc sunt feri boves bicornes, bubalus, urus, & bonasus : sed hic habet cornua ad oculos flexa, ad pugnam dum inutilia.

176. Next are the wild oxen with two horns, the buffal [buff,] the ower, and the bugle ; but this hath horns bent to his eyes, useless for fighting.

177. *Unicornis* spectandus cornu unico bicubitali, incolit abditissima deserta ; neque capi potest, ob incredibilem pernecitatem.

177. The unicorn to be looked at for his one cubits horn, inhabits the most retired wildernesses ; nor can he be taken, by reason of his incredible swiftness.

178. Ex gestantibus ramosa cornua, alces est maxima, habens tergum infecabile præduritiæ ; tum rangifer jubatus, velocitatæque tantâ, ut decurrat diurno cursu supra octingenta stadia, per nivem & glaciem.

178. Of those that wear branched [knaggy] horns, the alce [elk] is the biggest, having a hide [back] that cannot be pierced for hardness ; then the rangifer maned, of so great swiftness, that it runneth in a dayes space above eight hundred furlongs, through snow and ice.

179. *Cervus* præagilis, ge-

179. The stag [hart] very nimble.

stans cornua decidua quotannis, (regignuntur enim; sed *cervæ* nulla sunt) solus è brutis lacrymatur moriturus.

180. *Damæ* cornua lateſcunt; ibici in dorſum reflectuntur; *rupicapræ* sunt obunca, ut auxilio horum infiliat rupes, deſiliâtque indemnis: *capreolus* (cum sua *caprea* & *hinnulis*) est minimus corniferorum.

181. *Bestiæ* non sunt cornutæ; sed armatæ unguibus ac dentibus, quia non herbaticæ sunt, sed carnivoræ: *leo* robustissimus harum, armisque hirtis, rugit formidolosè.

182. *Pardus* dimittit prædam, quam non assequitur saltu terno; habet pellem distinctam maculis nigris: *pardalis* paululùm diversam, interalbicantibus punctulis.

183. *Tigris* omnium fævissima, (& ipsa maculosa) dicitur adeò efferari sonitu tympanorum, ut dialaceret seipsam acta in rabiem: *lynx* aliquantò minor corpore, haud dispar ferocitate, & visus præacuti, tergorèque colorato.

184. *Ursus* villosus continet se per hyemem in spelæis sine victu: *ursa* reſingit catu-

ble, wearing horns that shed [fall off] every year, (for they grow again; but the hind hath none) he alone of all the brutes weeps at's death.

180. The fallow-deers horns spread wide: the ibex his horns bend back upon his back: the wild goats are somewhat crooked, that by their help they may the better clamber up the craggy rocks, and leap [get] down without hurt; the roe-buck (with his doe and fawns) is the least of horned beasts.

181. Savage beasts have no horns, but are armed with claws and teeth, because they feed not on grass, but prey on flesh: of those the strongest the Lion, with his shag-hair'd shoulders, roars hideously.

182. The libbard gives over the prey, which he catcheth [overtaketh] not at three jumps; he hath a skin speckled with black spots: the panther hath one a little differing, with whitish specks betwixt.

183. Of all, the Tigre most savage (and she spotted too) is said to be enrag'd at the beating of drums, that raving mad she tears her self; the lynx something less in body, not unlike in fierceness, and of a very quick [sharp] sight, and a colour'd skin.

184. The shaggy [rough-hair'd] bear during the winter keeps himself in dens without food; the she-bear

los circumlambendo, quia semiformes nascuntur.

185. *Lupus*, voracissima bestiarum, famelicus ululat: *vulpes*, gulosa & dolosa, nunquam cicuratur, vernò glabrescit, ac fit depilis.

186. *Onager* perhibetur passi vento, si herbae defint: *aper* pastus radicibus, spumat rostro, frendensque dentibus ferit vertagos & venatores, interimit etiam quandoque.

187. *Simia*, (sola quadrupedum experta caudæ) est ridicula imitatrix operum humanorum: ut & *cercopithecus*, qui tamen caudatus est.

188. *Lepus* (quo nihil timidius) dormit oculis patentibus; ac siquid strepit, mox territus arrigit aures, vel propriipit se & confugit ad dumeta; si non potest aufugere, & capitur, vagit. *Curiculo* nihil fecundius; ut qui non tantum crebro fortat, sed & superfecundat.

189. *Erinaceus*, viso periculo, convolvit se in globum,

fashioneth her whelps [cubs] by licking them over, because they are brought forth half-shaped.

185. The wolf, the most ravenous of beasts, being hungry howleth: the gluttonous and crafty fox is never tamed, in the spring time he sheddeth his hair, and groweth bald [pild.]

186. The wild-ass is reported to feed on wind, if there be no grass: the wild-boar eating roots, foams with his snout, and grasping with his teeth strikes both hounds and hunts-men, and sometimes kills them too.

187. The ape [jackanapes] (alone of four-footed creatures without a tail) is a ridiculous [apish] actor of the works [doing] of men: also the monkey [babour, marmoset] who yet hath a tail.

188. The hare (then which nothing is more fearfull) sleeps with his eyes open; and if any thing makes a noise, she immediately being startled pricketh up her ears, or away she flings, and betakes her self to the thickets [bushes] if she cannot get away but is taken, she squeaketh. Nothing is more fruitfull then the conie, because it doth not only often kindle, but also after the first young she conceiveth another.

189. The hedg-hog [urchin] perceiving a danger rolleth himself crigit-

erigitque aculeos, nè prehen-
di queat : *hystrix* ejaculatur
suos aculeos veluti spicula,
vulneratque insequentes can-
nes.

190. *Gazela* exsudat fragran-
tissimum moschum : nec dissi-
mitem huic *catus zibethicus*.

191. *Cati silvestres*, & *mar-
tes*, *martesque Scythica*, valent
ad pellicea : sicut & *mustela
Alpina*, & *mus Ponticus*, & *mus
Noricus*, & *viverra*, *mustelaque
domestica*.

192. *Sciurus* facit sibi um-
bellam umbrosâ suâ caudâ, quâ
& utitur vice alæ, dum trans-
volat de arbore in arborem :
mele & *glire* nihil somnolen-
tius.

193. *Sorex*, *cricetus*, uni-
versusque murinus grex (ini-
mici segetibus) cavant sibi fo-
ramina, in quibus hibernent :
talpa suffodiens campos facit
grumos.

194. Ad extremum sunt qua-
drupeda amphibia, incoler-
tia pariter terram & aquam ;
fiber ac *lutra* pilosi, caninæque
staturæ (sed ille habens cau-
dam squameam, pedesque po-
steriores anserinos :) & *cro-
codilus* movens superiorem
mandibulam, inter manden-

into a ball, and sets up his prickles,
that he may not be laid hold on : the
porcupine darts forth her prickles
like shafts, and woundeth the pursu-
ing dogs.

190. The catamountain sweat-
eth out the most fragrant musk : and
the civet-cat doth the like to this.

191. The wild-cats [*polcats*],
and the marren, and sable, are good
for furs, as also the ermin, and fir-
chew, and woolver ; and the fer-
rer, and the house-weezel.

192. The squirrel makes him-
self a skreen by his shady tail, which
he uses also in stead of a wing, whilest
he skips from tree to tree : there is
nothing more drowsie then the badger
[gray, brock] and dormouse.

193. The rat, field-mouse [*shrew* ;]
and all the micey flock, (foes to corn)
delve themselves holes, wherein they
make their abode in winter : the mole
[*wort*, mould-warp] digging up the
fields make mole-hills [*hillocks*.]

194. Finally there are four-foot-
ed creatures, that live as well by wa-
ter as by land ; the beaver and ot-
ter hairy, and of a dogs size (but he
has a scaly tail, and his hinder feet
like a gooses :) and the crocodile,
which as he is chewing, moveth his
upper jam : & the shielded tortoise,
and the croaking frog, with the
dum :

dum : & *testudo* clypeata, ran-
nâque coaxans, cum *bufone* ye-
nenato, & *calamita* innoxia,
&c.

poisonstoad, and the harmless gad-
dock, &c.

C H A P. X X.

H O M O.

195. *Hætenus* collustra-
vimus classes creaturarum,
quibus quia Creator dedit do-
minatorem, conformatum ad
imaginem suam ; hunc age-
dum speculemur ! sed intentè,
ut dum alia veniunt in cogni-
tionem tuam, tu nè ignores
teipsum ; corpore brutis simi-
lem, mente ad angelicam ex-
celsitatem factum.

196. *Homo* conceptus in u-
tero matris, dicitur *embryo* :
editus in lucem, *infans* : im-
pubis, *puer* : pubescens, *ado-
lescens* : puber, *assequutusque*
terminum staturæ, *juvenis* :
tùm *vir* : mox provectiore æ-
tate, *senex* : denique (in de-
crepita senectâ) *edentulus se-
nectio*.

197. Sic è *pupa* fit *puella*,
tùm *adolescens*, indè *juven-
cula*, dehinc mulier, tandem
annosa *vetula*.

198. Ita humanæ vitæ cur-

M A N.

195. Hitherto we have surveyed
the ranks of creatures, to whom see-
ing that the Creatour hath given a ru-
ler fashioned according to his own
image ; come on let us take a view
of him ! but heedfully, that whilst
other things fall into your knowledg,
you may not be ignorant of your self,
made in body like the brutes, but in
mind to the height of angels.

196. Man being conceived in his
mothers womb, is call'd an *Embryo*
[shapeless lump:] being brought forth
into the world, an infant : being not
yet grown up, a boy : growing ripe,
a stripling [lad :] being ripe [at
full growth,] and having attained
the pitch of his stature, a young
man : then a man by and by in his
elder age, an old man : lastly (in
his drooping old age) a toothless do-
tard.

197. So of a baby comes a
wench [girl,] then a lass, thence a
young-woman [maid,] after that a
woman, at last an aged old wo-
man [crone.]

198. Thus the race of mans life
riculum

riculum nihil est, nisi nasci, puerascere, adolescere, juvenescere, virefcere, senescere, mori.

is nothing else, but to be born, grow boy, lad, young man, man, old man, and dy.

199. Si attendas ætatis occupationes, infantia seipsam ignorat, pueritia ludicris transigitur, adolescentia curiosis tentatur, juvenus, vanis oblectatur, virilitas laboribus fatigatur, senectus relabitur ad priorem invalescentiam, (hinc senes dicuntur repuerascere, & esse bis pueri:) donec senilis marcor consumat & consummet vitam, heu quàm fugacem!

199. If you mind the employments of each age, infancy knows not it's own self, childhood is passed away [spent] in sports [pastimes,] strippling age is tempted with curiosities, youth is delighted [taken up] with vanities, man-hood is tired [wearied] with labours, old age falls back to its former weakness, (hence old men are said to grow children again, and to be twice boys:) untill the decay of old age waste and finish life, alas how swift!

200. Interea tamen demandantur nobis hîc magna peragenda, quæ omnia cõtendunt, ut præparemur æternitati, in quam intromittendi sumus: disce igitur T E I P S U M N O S S E, obsecro!

200. Nevertheless in the meanwhile there are great things put upon us here to perform, all which doe tend hither, that we should prepare our selves for eternity, into which we are now entring: learn therefore, I pray you, T O K N O W Y O U R S E L F.

C A P. XXI.

Corporis humani externa membra.

The outward parts of mans body.

201. Corporis nostri compagem (rationalis animæ habitaculum organicum, tanquam illustre specimen sapientissimi architecti) nemo satis demirari queat, si articulatim spectatur.

201. The frame of our body (being the organick seat [dwelling] of a rational soul, as the noble essay [master-piece] of the most wise builder) none can sufficiently admire, if it be looked upon joynt by joynt [piece by piece.]

202. Quæ membra bina data sunt, locantur ex adverso ad

202. Those members [parts] which are twaina [two of the same latera;

latera ; quæ *singula*, per medium ; *præstabiliora* supremo loco vel intimo ; *sequiora* infimo vel extimo :

203. *Capilli* contegunt potissimam partem capitis, (rotati in vertice : anteriorem decorat facies, è qua dignoscimus personas : in facie autem frons eminet, figurâ prope semicirculari, (definens utrinque in tempora) plerisque glabra, paucis hispida, senescentibus rugosa, lætis erugata, iracundis caperata.

204. *Oculi* subjacent fronti, mobiles quoquo versum, facti è tunicis, & transparentibus humoribus ; prominui cernunt obscurius ; profundiores clariùs : sed *hirqui* sudant, sæpè lacrymas, quotidie graminas.

205. *Pupilla* (circumfusa albo) est speculum, in quo imaguncula rerum objectarum resplendent, in forma pupularum : eam humectant palpebræ nictando, cilia verò, (è crepidine palpebrarum enata) una cum *superciliis*, prohibent ut res quid incidat.

kind] are placed on the sides, o're against one another ; such as are single, in the middle ; the more excellent ones in the highest or inmost place ; the baser ones in the lowest or outmost.

203. The hairs cover the greatest part of the head, (turn'd round at the crown :) the former part the face doth adorn, by which we know persons [from one another :] in the face the fore-head is of most note, almost in the form of an half circle, (ending on both sides at the temples) which most men have slick, some few hairy, old folks wrinkled, those that are cheerrull [merry] smooth, and the angry frowning [scowling.]

204. The eyes lye below the forehead, moving [rolling] every way, made of coats and transparent humors ; those which stand out, see more dimly ; the more deeper the more clearly : but the eye-corners sweat [soke, sew out] tears often, gumm [spader] daily.

205. The apple [sight] of the eye (compassed with the white) is a looking-glass in which the resemblances of things presented do glister in the shape of babies ; this the eye-lids keep moist by twinkling, but the breees [hairs] (growing out of the brim of the eye-lids) together with the eye-brows, hinder any thing from falling in.

206. *Auriculæ* sunt adaptatæ *auribus*; *patulæ*; ad repercutiendum sonos, & cavatæ, ad introvertendum anfractibus.

207. *Nasus* incipit ad intercilium, datus respirationis causâ: demittit se inter duas *geras*, discriminaturque in duo spiracula, *nares*, per quas emanans *mucus* detinetur à vibrissis, ut nē defluat ante munctionem.

208. Infra *nasum* sunt *rubicunda labia*, *apertile os*; *tum mentum* & *maxillæ*, *ephebis lanugine*, *viris barba intactæ*; *fuperius labrum* tegitur *mustace bipartito*; sed *quidam* sunt *imberbes*.

209. *Fugulum* est pars *colli* anterior, *cervix* posterior.

210. *Pectus* turgēt *papillis* (*calidioribus maribus hirtum*;) *umbilicus* est in medio *ventris*; infra hunc *inguen*, cum *adjacentibus verendis*, quæ, ut *nudare*, ita *nominare*, *pudor* vetat.

211. *Tergum* habet *humeros*, *dorsum*, *lumbos*, & *nates*, *obvolatas clunibus*, *sessionis gratiâ*; ad *latera* sunt, *axillæ*, & *hypochoadria*.

206. The laps of the ears are fitted to the ears; being wide [open] to beat back the sounds, and hollow to turn them inward by their windings.

207. The nose begins at the space between the brows, given us to fetch breath: it goes down betwixt the two cheeks, and is severed into two breathing holes, the nosethrills, through which the snout [snivel] running down is staid at the nose-hairs, that it may not drop down before it be wip'd [blown, snuffed.]

208. Beneath the nose are the ruddy lips, the mouth to open; then the chin and the jaw-bones, in youth covered with down, in men with a beard; the upper-lip is covered with a pair of mustachoes; but some are beardless.

209. The former part of the neck is the throat, the hinder part the nape [crag.]

210. The breast strutteth out with nipples [paps, teats] (in hot-natured men hairy;) the navel is in the midst of the belly; below it the lesk [groin] with the adjacent privities, which shame as well forbids to name, as to uncover.

211. The back hath shoulders, a ridge, loyns, and a breech, be-wrapped about with buttocks, to sit on: on the sides are, the armpits and the flanks.

212. Ab humeris dependent torosa brachia; hinc flexibiles cubiti, (quibus inniti solemus) & lacerti; manusque perquam versatiles, ut quidvis pro lubitu versare ac informare valeamus: quarum sinistra tenet, dextra operatur; quamvis hoc se habet apud scævolas, contrariè, apud ambidextros indiscriminatum.

213. Manus concava dicitur vola; diducta palma; contracta pugnus: habetque digitos quinque, & quisque digitus articulos tres, totidemque; condylos: quorum postremi exeunt in ungues, quibus scabimus, scalpimus, lancinamus, laceramus, (pollice premimus, indice monstramus, verpo ludificamus, annulari annulos gestamus, auricularis pro auri-scalpio est.)

214. Sic infra coxas femora sunt; sub genibus trura; sub poplite suræ; à suffragine est imus pes, continens talos & calcaneum, convexam plantam, & solum hallumque cum digitis, quibus subnixi eminentiis protollimur.

212. From the shoulders hang down the brawny arms; hence the bending elbows (on which we are wont to lean;) also the arms and the hands very pliant, that we may turn and wind any thing at our pleasure: whereof the left-hand holdeth, the right worketh; although with left-handed folks this is quite contrary, with those that can use both hands alike indifferently.

213. The bowing hand is call'd the hollow; being spread open, the palm; being clutcht, the fist: and it hath five fingers, and every finger three joynts, and as many knuckles: the last of which end at the nails, wherewith we claw, scratch, tear, rend in pices, (with the thumb we crush [tweak,] with the forefinger we point at, with the middlefinger we jeer, on the ring-finger de wear rings, the little-[ear]finger serves instead of an ear-picker.)

214. So below the hips are the thighs; under the haeces the shank [legs;] under the ham the calves of the leg; at the pastern [hough] is the lowest foot, containing the ankles and the heel, the ball of the foot, and the sole, and the great toe with the other toes, on which standing [on tip-toe] we are raised higher.

C A P. XXII.

Partes corporis ossæ.

The bony parts of the body.

215. Libetne inspecticere

215. Have you a mind to look
interanea?

interanea ? videbis mirabiliorē structuram microcosmi, ejus fulcra *Ossa*, circiter trecenta sunt; divisa in ossa capitis, trunci, artuum.

Vide Tab. 5. & 6.

216. Capitis calvaria est perstinatim veluti confuta, ex pluribus ossibus: duæ maxillæ continent triginta duos dentes, in totidem alveolis: quorum anteriores quaterni vocantur *incisores*, utrinque illis proximi *canini*, dehinc quini *maxillares* (seu *molares*), postremo *genuini* bini.

217. *Truncum* constituunt, in longum quidem *spina dorsi*; supernè verò *ossa thoracis*; infernè *os sessibuli*.

218. *Spina dorsi* (ut serviat corporis flexuræ ac erectioni) dissecta est in *vertebras* triginta quatuor: quarum septem insunt *cervici*, duodecim *tergo*, quinque *lumbis*, quatuor *ossi sacro*, residuæ sex *ossi coccygis*.

219. *Ossa data pectori* muniendo sunt, inantè *sternum*, à tergo *scapulæ* duæ: (quas cum *sterno* copulant *claviculæ*, seu *jugula*, in avibus *furculæ* dictæ:) collateralliter verò *costæ*, utrinque duodenæ, omnes exeuntes è *vertebris spine*,

into the inner parts? you shall see a more wonderfull compos'd frame of the microcosme [little-world,] whose props are the Bones, about three hundred; divided into the bones of the head, of the body, of the limbs.

216. The skull [brain-pan] of the head is as it were sticht [packed] together like comb-teeth of severall bones: the two jaws contain in them thirty two teeth, in as many sockets: of which the fore-most are called the fore-teeth, the next to them on both sides the dog-teeth, then the five jaw-teeth, (or grinders,) finally the two cheek-teeth.

217. These make up the trunk [bulk,] long-wise the ridge-bones; but upwards the breast-bones; downwards the seat-bone.

218. The back-bone [chine] (that it may serve for the bending and raising up of the body) is divided into thirty four rack-bones: of which seven are placed in the neck, twelve in the back, five in the loins, four in the holy-bone, the remaining six in the rump-bone.

219. Bones given for the guarding of the chest [breast,] are, afore the breast-bone, behind the two shoulder-blades: (which the collar or throat-bones joyn to the breast-bone, called in birds the merry-thought:) but side-long the ribs, on each side twelve, all issuing from

sed tantum septem superiores articulatæ cum sterno : quinque breviores nomina vocant.

220. *Os sessibuli* vocatur sub lumbis *os ilium* ; in opposito , (sub ventre) *os pubis* ; ad latera, quæ femoribus insitit, *os coxæ*.

221. *Artus* sunt manuum & pedum ossa : illa impacta scapulis, hæc coxendicibus.

222. *Ossa manus* unius tot sunt, quot *vertebræ spinæ dorsii* : *os brachii* unum ; *cubiti* duo, (*ulna & radius* ;) *carpi* octo ; *metacarpii* quatuor ; *pollicis* tria ; *reliquorum digitorum* quaternæ ; conjunctim sexdecim.

223. Sed in pede non nisi tricena sunt : *os femoris* unum ; *cruris* duo (*tibia & fibula* ;) *tarsi* septem ; *metatarsi* quinque ; *digitorum* quatuordecim ; & insuper *patella genualis*.

224. *Majora ossa* sunt cava intrinsecus, continentque medullam ; *minora*, non quidem medullosa, succosa tamen : omnia contexta extrinsecus membranulis.

225. *Juncturæ ossium* simpli-

the rack-bones of the chine ; but the seven highermost only joynted with the breast-bone : the shorter five they call bastard ones.

220. The seat-bone under the loins is called the flank-bone, over against [athwart] (under the belly) the share-bone ; on the sides, where it stands upon the thighs, the hip-bone.

221. Joints are the bones of the hands and feet : those fastned in the shoulder-blades, these in the hip-bones,

222. The bones of one hand are as many as the rack-bones of the chine : one arm-bone ; two of the elbow, (the ell and shurtle;) eight of the wrist ; four of the ball of the thumb [after-wrist ;] three of the thumb : four of the rest of the fingers ; altogether sixteen.

223. But in the feet there are no more but thirty : one bone of the thigh : two of the leg (the shin-bone and brace;) seven of the heel ; five of the in-step ; fourteen of the toes ; and moreover [besides] the whirl-bone of the knee.

224. The greater bones are hollow ith in-side and have marrow in them ; the lesser are not indeed marrowy, yet juicy : all of them covered on the out-side with little skins.

225. The joyning of the bones

ei commissura glutinantur, ubi sine flexu sunt: sed ubi debent flecti, cohærent articulationim, per insertum caput alterius *cotylæ* alterius; interposita tamen *cartilagine*, (velut *culcitella*) ne ossa (mutuo contactu & attritu) dolorem sentiant: ac ne etiam violento motu ossa divellantur, aut luxentur, quilibet articulus circum ligatur ligamenti firmis-

are glew'd together by a plain clasp-
ping together, where they are without
bending: but where they ought to be
bent, they hang together joint by joint,
by the head of one thrust into the
hollow of the other, yet with a gri-
stle being put between (as a pillow
[bolster]) least the bones (by rubbing
and fretting one against another) should
feel any pain: and least the bones also
should by violent motion be pluckt
asunder or loosened [put out of joynt,
] each joynt is tied about with most
strong ligatures [strings.]

CAP. XXIII.

Carnæ partes corporis.

The fleshy parts of the body.

226. Ita est *sceletos* nostri corporis, quem *Caro* circumvestit: at non continua massa, sed (ob diversas motiones membrorum) dispersita velut in funes, aut farcimina, quæ anatomici vocant *musculos*, & numerant quadringentos quinque: qui, detracta cute, sic apparent. (*vide typum æneum.*)

226. Thus is the anatomy of our body, which Flesh doth cloathe round: yet not with one entire lump, but (by reason of the severall motions of the limbs) parted as it were into ropes, or gut-puddings [links,] which the Anatomists call muscles, and reckon four hundred and five of them; which when the skin is stead, appear thus. (See the brazen type.)

217. *Cerebrum* est summum inter viscera, convelatum gemina *meninge*, intra cavernas cranii: in se autem divisum in quatuor cellulas, (vocant *ventriculos*;) & quintum sub occipite, *cerebellum*: à quo *medulla spinalis* exit, & ab hac rursum rami *nervorum* divi-

227. The brain is the chiefest among the entrals, covered over with a double film within the hollow of the skull: but in it self divided into four little cells (they call them ventricles;) and the fifth under the hinder part of the head, the brain-pan, out of which proceeds the marrow of the back-bone, and from this a-

dunt se per totum corpus.

gain the branches of the nerves disperse themselves through the whole body.

228. Cava trunci sunt divisa in duas concamerationes, disseptas ab invicem carneo septo transverso, (diaphragmate:) supra quod est thorax, infra illud venter.

228. The cavities of the trunk are divided into two stories, parted from one another by a fleshy partition (lying overthwart the midriff:) above which is the breast, below it the belly.

229. Thorax continet præcordia: nempe cor, inclusum pericardio, unde prodit aorta magna, truncus arteriarum dividendarum per omne corpus; & pulmonem circumdatum cordi, carne rara, cœu spumea, ac bivalvi.

229. The breast contains in it the upper entrails: to wit, the heart shut up in the heart-purse, from whence proceedeth the great artery [aorta,] the stem [stock] of the arteries beating [pauing] pulses to be branched throughout the whole body; and the lungs [lights] surrounding the heart, with thin flesh, as if it were frothy, and with two flaps.

230. Viscera abdominis sunt septem: ventriculus (cum intestinis substratis sibi) circumtectus omento: ad cuius dextram jacet jecur, cum vesicula fellis oblonga: ad sinistram verò lien, & in lumbis duo renes: tandemque urinaria vesica: omnia hæc circumtensa peritoneo, tota vero corporis compages cuti, & cuticula.

230. The bowels of the paunch are seven: the stomach (with the guts lying under it) cover'd with the cawl [kell:] at the right side of which lieth the liver, with the long small bladder of the gall: and on the left the spleen [milt,] and in the loins the two reins [kidneys;] & lastly the bladder of piss: all these spread round about, [over] with the rim of the belly, but the whole frame of the body with a skin, and little [thin] skin.

C A P. XXIV.

Humores corporis cum spiritibus.

The humours of the body with the spirits.

231. Quemadmodum ossa

231. Even as the bones are plumpt expen-

explentur carne, ita caro udatur humoribus; hos autem permeant spiritus, effectores omnium, quæ fiunt in corpore.

232. Humor primarius est sanguis, rubens & dulcis; tum pituita (phlegma) subalbicans & insipida; dehinc cholera, bilis flava & amara; tandem melancholia, bilis atra & acida.

233. Pro præpollentia humorum inducitur nobis diversitas temperamenti: ut alii dicamur sanguinei, calido-humidi & alacres; alii cholevici, calido-sicci & feroces; alii phlegmatici, frigido-humidi & se-gnes; alii melancholici, frigido-sicci & tristes.

234. Spiritus autem fiunt è depuratissimo sanguine, & diffundunt se per corpus totum, ad illud vivificandum & vegetandum: naturalis diffuit ex hepate, per venas; vitalis dis-sultat ex corde, per arterias; animalis dimanat è cerebro, per nervos.

235. Quisque illorum fur-gitur munere suo peculiari: naturalis distribuit membris nutrimentum; vitalis commu-nicat iisdem vivificum calorem; animalis dirigit sensum

up with flesh, so the flesh is moistned with humours; and through these also passe [get] the spirits, the a-ctors of all things which are done in the body.

232. The chiefeft moisture is the bloud, red and sweet; then spit-tle [phlegm] somewhat white and without taste; afterward choler, yellow and bitter; lastly melanco-ly [black choler] black and sowre.

233. According to the predomi-nance of the humours there is brought into us a diversity of tempers; that some of us are said to be sanguin, hot and moist and cheerfull; others cholerick, hot and dry and fierce [teasty;] others phlegmatick, cold and moist and sluggish; others me-lancholy, cold and dry and sad.

234. But the Spirits are made of the most refined bloud, and spread themselves through the whole body, to quicken [enliven] and cherish it: that which is the natural one flows [issues] from the liver through the veins; the vital spirit sallies out of the heart, through the arteries; the animal spirit trickles from the brain, through the sinews.

235. Each of them dischargeth his own proper office: that which is natural distributeth nourishment to the members; that which is vital imparteth to the same a lively heat; the animal ordereth the sense and

& motum : quæ singula , quâ motion : each of which things after ratione fiant, edisce. what manner they are done, learn.

C A P. XXV.

Functio naturalis.

The natural function[operation.]

236. Omnia membra nutriuntur sanguine : sanguis autem fit ex concoctis alimentis, hoc processu.

236. All the members are nourished by blood : but the blood is made of food digested, in this course [order.]

237. Alimentum (incisum primoribus, atque confractum caninis, si quid durum fuit) manditur molaribus, mansumque demittitur è bucca, per gulam, in stomachum : ubi fit concoctio prima, hoc est, conversio ingesti cibi & potûs in chylum : si quid hic non sufficienter percoctum est, auget pituitam.

237. The food [meat] (being minced [shred] with the fore teeth, and broke with the eye-[dog-]teeth, if any thing were hard) is champed [chawd] with the grinders, and being champed is let down out of the cheek-puff through the gullet [meazur] into the mouth of the stomach : where is made the first concoction, that is, the turning of the meat and drink taken into a chyle, [white pappy substance:] if any thing is not here sufficiently concocted, it encreaseth flegme.

238. Chylus deferitur (per inferius orificium ventriculi) in lactes, (lactes sunt graciliora intestina, convoluta in multimodas spiras, & obvoluta mesenterio) ibique eliquatur purius : protrusis fecibus crassioribus per intestina crassiora, egestisque & ejectis foras, (dicuntur oleta & merdæ.)

238. The chyle is carried down (through the lower orifice [passage] of the man) into the little guts ; (the small guts are the more slender entrails, folded [rolld, wrapt] up into severall sorts of rings, and lapt about [enwrapped] with the midriff) and there it is strained more purely : the grosser dregs being thrust along through the greater guts, and being voided and thrown forth adours (they are call'd ordure & S^r reverence.)

239. Quod autem nutriti-

239. But whatsoever remaineth

vum inest chylo, exfugunt *venulæ mesaraicæ*, immittuntque hepatis per *venam portam*, ubi peragitur *concoctio secunda* (hoc est, languificatio,) amoris inde per tres vias ternis excrementis, serosis, turbidis, perustis.

240. Nam quod serosum est, id meat ex hepate (per *venas emulgentes*) ad *renes*, ulteriusque per *venas albas* (*urteres*) ad *vesicam*: cui urina instillatur, & exinde meiendo emittitur.

241. Quod turbidum est in sanguificatione, id trahit ad *scalen*, receptaculum atræ bilis; immittitque rursum intestino crasso, per *venulas certas*.

242. Tandem *vesicula fellis* receptat inflammatores *portuunculas* (sanguinis) & transmittit itidem ad *intestina*, quæ inde stimulantur ad egerendum *stercora*.

243. Sanguis sic jam purificatus, digeritur per *venam cavam*, dimittentem *ramusculos* quoqueversus, ubi fit *tertia concoctio*: dum quodvis membrum bibit rorem illum

in the chyle which pertaineth to nourishment, the little mesaraick veins suck it out, and put it into the liver by the port-vein [*vena porta*] where the second concoction is perform'd (that is, the changing of nourishment into blood,) three severall excrements, the serous, turbid, adust, being carried away thence by three passages.

240. For the wheyie part, that passeth from the liver (through the emulgent veins) to the kidneys [reins,] and further through the white veins (urine-tunnels) to the bladder: into which urine droppeth; and from thence is let out by pissing [making water.]

241. The muddy part in blood-making, the milt [spleen] draweth to it self, being the receptacle of melancholy [black choler;] and lets it in again to the great gut, through certain little veins.

242. Lastly the bladder of gall receives the more inflamed parcels (of blood) and in like manner conveys them to the guts, which thereby are goaded [stir'd] to throw forth [void] dung.

243. The blood being now thus cleansed, is carried through the [*vena cava*] hollow vein, shooting forth its little branches all about, where the third concoction is made: whilst each limb sips in that bloody dew

sanguineum exstillantem, & assimilât sibi lenta agglutinatione, atque sic accorporat.

dropping [trickling] through, and li-
kens it to it self by a clammy cling-
ing together, and so by this means
imbodies it.

244. Excrementa hujus tertie concoctionis sunt impuritates collectæ membratim, expellendæ per poros cutis, & alia emuntoria: (puta per sudorem, sputum, mucum, ster-
nationem) ut ne faciant putrescentes morbos.

244. The excrements of this third concoction, are the uncleannesses gathered from every limb, which are to be driven out through the pores of the skin, and other drainers: (as by sweat, spittle, snivel, sneezing) that they may not breed putrid diseases.

245. Ergo quodcumque membrum est indigum alimentari, sollicitat suas venulas; illæ venas; hæ jecur; jecur venas mesaraicas; hæ ventriculum; ventriculus verò corrugat se, si non habet quod det; & hoc est, quod vocamus esuriam; sitim autem, cum opus est alimento humido, faucibusque arseunt.

245. Therefore whatsoever part is wanting of nourishment, it calls on its small veins; those the greater veins; these the liver; the liver the mesaraick veins; these the maw; but the maw shrivels it self, if it hath nothing to give: and this is that which we call hunger; and thirst when we stand in need of moist nourishment, and the chops are dry,

C A P. XXVI.

Functio vitalis.

The vital function [operation.]

246. Cor, fons vitæ, excoquit (ex purissima portione sanguinis) flammulam, spiritus vitalis dictam, distribuendam per arterias in omnia membra.

246. The heart, the fountain [spring] of life, doth boil up (out of the finest parcel of blood) a little flame, call'd the vital spirit, which is to be imparted through the arteries into all the members.

247. Palpitât autem præ calore continenter: ut expectari potes ex contrectatu pectoris, arteriarumque pulsu,

247. And it panteth [throbbeth] by reason of its heat incessantly, as you may try by the feeling of your breast, and the beating [panting] of præsertim

præsertim ad carpos, & ad tempora.

248. Pulmo ergo illi adjacens, attrahit (distendendo sese instar follium) frigidiusculum aerem, cumque afflando cordi refrigerat illud; rursumque se comprimendo, & tepefactum aerem reslando, egurgitat fuliginosos halitus; quod *spirare* & *respirare* vocamus.

249. Quæ res cum deserviat vitæ sospitantæ, factus est canalus ille (à faucibus oris in pulmonem descendens) ex cartilagineis annulis; ut posset patere semper, claudi nunquam, ne respiratio interciperetur.

250. Sed hæc arteria aspera est simul vocis instrumentum; quippe cujus summitas, guttur, habet rimulam fistulæ similem, in quam aer impulsus sonat; acutius vel gravius, prout annulus trachææ se progerens (superior aut inferior) à larynge distantiam facit.

251. Articulatam vocem facit varius allisus soni (ad linguam, palatum, dentes) variæque configuratio oris.

252. Indè est quod brutorum voces multifonæ, & tamen unisonæ, sunt; arguis enim tantum sibilat, aquila clar-

the arteries, especially at the wrists, and at the temples.

248. The lungs [lights] therefore that lie next to it, draw (by stretching forth themselves like bellows) a cool aire, and by fanning it to the heart refresh it; and again by crushing themselves and breathing back the aire being heated, discharge foggy vapours: which we call taking and fetching breath.

249. which thing seeing it serves for the preserving of life, that channel (which comes down from the chaps of the mouth to the lungs) was made of gristly rings: that it might alwayes lie open, never be shut, lest the breath should be stopped.

250. But this wind-pipe is also an instrument of the voyce: because its top, the throat, hath a little cleft [rift] like a whistle, into which the aire being forced soundeth; sharp [shrill,] according as the ring (upper or lower) of the weafon thrusting it self forth makes a distance from the throttle.

251. The various dashing of the sound (at the tongue, palate, teeth) and the various shaping of the mouth makes a distinct voyce.

252. Hence it is that the voice of brutes are of many sounds, and yet but of one sound: for the snake only hisseth, the eagle frilleth, the stork

git,

git, ciconia gloterat, cornix cornicatur, apis bombylat, bos boat. taurus mugit, ovis balat, porcus grunnit, aut quiritat, vulpes gannit, ursus murmurat, &c. pisces carent voce, quia carent pulmone ac tracheâ.

253. At homo potest aliter atque aliter sonare; dum tristis suspirat, ægrotus gemit, impatienter dolens plorat & ejulat, tacitè loquens mûsat aut susurrat, sonore clamat, &c.

254. Quia verò trachea non potest tolerare aliud præter aërem (alioqui mox tumultuatur, tussiendoque expectorare molestam rem quærit) additum ibi operculum, gurgulio, obturât laryngem tum, cum alimentum œsophago ingeritur, ne aliquid influat.

255. *Tonsillæ sunt duæ fungosæ glandulæ, ibi ad vultam sitæ; veluti fontes salivæ, ad linguam semper salivandum.*

chattereth, the crow kaweth, the bee hummeth, the cow loweth, the bull belloweth, the sheep bleats, the hog grunts, or whines, the fox yelps, the bear grumbles, &c. *fishes have no voice, because they want lungs and wind-pipes.*

253. *But man can make severall sounds: whilst being sad he sighs, sick he groans, outrageously griev'd he moans and wails, speaking softly he mutters [mumbles] or whispers, speaking aloud he bawles [cries out.]*

254. *But because the wind-pipe cannot endure any thing beside air (otherwise it is troubled, and by coughing seeks to throw out of the breast any thing that grieves it) the cover [flap] thereto joyned, the throat-pipe [guggle] stops the throttle then when the meat is carried down into the gullet least any thing get into it.*

255. *The almonds of the ears are two spongy kernels, seated there at the palat of the mouth; as the springs of spittle, to keep the tongue alwayes moist and glib.*

C A P. XXVII.

Functio animalis, cum sensu, motu, & quiete.

256. Sedes spirituum animalium est in cerebro: unde illi excurrendo per nervos, (ad oculos, aures, nares, lin-

The animal function [operation] with sense, motion and rest.

256. *The seat of animal spirits is in the brain: whence they by running out (of it) through little nerves [nerves] (to the eyes, ears, nosethrills, guam,*

guam, & per omne corpus) faciunt, ut quicquid nos contingit, quale sit cognoscatur.

257. Nam caleſcētne aliquid an frigeat, comperies *tangendo*: humidūne an ſiccū sit, *prensando*; durū an molle, *comprimendo*; aſperū an læve, *attrectando*; grave an leve, *attollendo*; ubi ſit in tenebris, *palpando*.

258. Atque iſte eſt primus ſenſus, *Tactus*, quo ſi afficimur blandē, *voluptas* eſt; ſi moleſte, *dolor*; ſi blandulis preſſationibus, *titillatio*; ſi minutulis compunctiunculis, *pruritus*.

259. Idem ſpiritus examinat ſapores *linguā*, poroſo & nervoſo membro: deprehenditque mel eſſe *dulce*, ſel *amarum*, acetum *acidum*, piper *acre*, fructum maturum *sapidum*, immaturum *aſterum*, labruſcum *acerbum*, multaque prorſus inſipida: eſtque hic ſecundus ſenſus, *gustus*.

260. Tertius eſt *olſactus*, internofcens odores, hoc eſt ſubtiliſſimas exhalationes rerum: quæ permanando ad nares, ſpiritum afficiunt, vel gratē, *ſuaueolentia*; vel moleſtē, *graveolentia*: ut cū aduſta caro exhalat *nidorem*; putida

tongue, and along the whole body) cauſe that whatſoever comes near us, it is known what it is.

257. For whether any thing be hot or cold, you ſhall find [know] by touching it; wet or dry, by gripping it; hard or ſoft, by preſſing [cruſhing] of it; rough or ſmooth, by handling it; heavy or light, by liſting [titeing] it; where it is in the dark, by groping.

258. And this is the firſt ſenſe, Touching [feeling,] wherewith if we are pleas'd [kindly taken] 'tis pleaſure; if troubled, pain; if with pretty ſine touches, tickling; if with little ſmart pricklings, itch.

259. The ſame ſpirit examines [tryes] ſavours [taſts] with the tongue; a member full of pores and nerves: and doth find hony to be ſweet [luſcious,] gall bitter, vinegar ſharp [tart,] pepper keen [biting,] ripe fruit ſavoury [well-reliſht,] green fruit harſh [crabbed,] wild fruit ſowre, and many things altogether unſavoury [ſlaſhie,] and this is the ſecond ſenſe, the Taſte.

260. The third is the Sent [ſmelling,] diſcerning ſmells, that is to ſay, the ſubtileſt vapours [breathings] of things: which by flowing to the noſtrils, [take] the ſpirit, either with pleaſure, as ſweet ſmell; or with trouble, as a ſtinking ſmell; as when fleſh being ſcorched breathes

putorem;

putorem ; rancida rancorem ; (quale esse solet lardum & arvina) morticina fetorem ; omnia enim mucida & situ corrupta , putent , sordent, foetent.

261. In auribus est officina auditus, ubi spiritus discriminat sonos, id est, coagitationes concussi circa se aëris, quas percipiunt auditoria organa ; (sunt membranula tensa ; & super illam tria officula, *stapes, incus, malleolus*) in quibus aliud vibramen perciet clamor, quam sibilus, &c.

262. Sonitus reperiuntur & resonans, aut reboans, echo dicitur ; modulatus, cantio ; è fractura veniens, fragor ; ex elisis, crepitus ; & si vehementior sit, fremitus ; valde tenuis, tinnitus, &c.

263. Visu discriminamus colores : quorum albus & niger extremi sunt ; luteus & caeruleus, viridisque & ruber, intermedii.

264. Albiditudo & nigritudo est gradus ita dignosce ; candida, capillus canus, ebur lacteum, palea pallida, asinus cinereus (seu murinus,) unguis rufus ; pix est atra, Ethio-

forth a reek [steam ;] being tainted, a stink ; being rancid, a rancidness ; (such as bacon and grease is wont to be) carrion, a stench ; for all things that are musty and tainted with mould are nasty, and smell filthy.

261. In the ears is the work-house of hearing, where the spirit puts a difference between sounds, that is, the motions [tossings, jumbings] of the aire shaken about it, which the instruments of hearing perceive (they are a little skin stretched out ; and above [upon] it three small bones, the stirrup, the anvil, the hammer) where a noise [out-cry] raiseth another kind of motion [joggling] then an hisse doth.

262. A sound reverberated and resounding, or recoiling, is call'd an Echo ; being tuned, a song ; proceeding from a breach, a crash ; from things squeez'd, a crack ; and if it be more violent, a rumbling, very small tinkling, &c.

263. By the Sight we put a difference between colours, whereof white and black are farthest asunder ; yellow and blew, green and red intermediate [middling ones.]

264. The degrees of whitenesse and blacknesse distinguish thus : chalk is white, hair hoary, ivory milk-white, chaffe bleak [pale,] an ash ash-colour'd (or of a mouse) [dun,] a nail carnation [flesh-colour, white-

ops fuſcus (furvus,) *passer* pullus, *anser* aquilus, *castanea* ſpadicea (badia.)

265. Inter cærulea & lutea diſcernes, ſi dices caryophylla hyacinthina, violas ianthinas, fugillationem lividam, cyanum cyaneum, felinos oculos caſſios (glaucos;) aurum verò eſt flavum, cadaver luridum, lupa rava, later ſemicoctus gilvus.

266. Inter viridia & rubra ſic diſcrimina: quercetum eſt herbeum, pinetum praſinum, pontus vitreus, & cum undat, venetus: è rubris ſunt, coccus purpureus, minium puniceum, flamma rutila, vulpecula ruſa, leo fulvus.

267. Ut autem ſentias te ſentire, dati ſunt ſenſus interni tres: 1. *Senſus communis* ſub ſincipite: 2. *Phantafia*, ſub vertice: 3. *Memoria*, ſub occipitio: illic ſpiritus tanquam in ſpecula ſtans, arripit ſimulachrum cujuſvis rei viſæ, auditæ, olfactæ, guſtatæ, tactæ;

red:] pitch is cole-black, a black-moor [*negro*, *moor*] is ſwart [*tanny*,] a ſparrow brown [*murry*,] a gooſe of a dark-gray, a cheſtnut of a cheſtnut-brown, (a bright bay.)

265. You will diſcern *twixt* blew and yellow things, if you ſhall call gilly-flowers of a dark-purple-blew, violets of a violet-colour, the mark of a bruise black and blew, the (herb) blew-bottle of an azure [*bright blew*,] cats eyes of a gray-blew [*owl-ey'd*,] but gold is of a bright yellow, a carcaſs wan, a ſheep-wolf tawny, an half-burnt brick a whitith yellow [*fallow*.]

266. Between green and red things thus put a difference: a grove of oaks is of a graſs-green, a grove of pines of a leek-green, the ſea of a glaſs-green, and when it waves, a venice-green: of red things there are, ſcarlet-grain of a crimſon [*common purple*,] *vermilion* [*red-lead*] of a dark-iſh-red, flame fire-red, [*glittering-red*,] a fox reddiſh, a lyon dun [*yellow-tawny*, *de roy*.]

267. That a man may know that he perceiveth [*things*] three inward ſenſes are given us: 1. The common ſenſe under the fore-part of the head: 2. the fancy under the crown [*top oth' head*:] 3. the memory under the hinder part: in that place the ſpirit ſtanding as in a watch-tower [*centry*] layeth hold on the reſem-iſhic

isthic ea speculans dijudicat ;
hic illas icones in futurum re-
condit , & pro occasione de-
promit.

268. Officium igitur sen-
sus communis est attendere ;
phantasiæ, imaginari ; memo-
riæ, meminisse ; aut si quid ob-
lita fuit, reminisci.

269. Idem animalis spiri-
tus operatur localem motum :
dum discursans per nervos, &
implens musculos, hinc inten-
dit tendines, indè retrahit ;
quam intensionem & attracti-
onem sequitur motus membri.

270. Fessus autem quærit
quiescere, ideoque (derelictis
sensoriis) occultit se in sua in-
teranea, quod somnum vocamus :
& sic dormire nihil est, nisi
habere sensus requiescentes ab
externis operationibus ; quò
iidem spiritus defessi, & dis-
persi, & disperditi, se intra se
recolligant.

271. Naturalis enim spiri-
tus maximè tunc vacat dige-
stioni ; vitalis reparat nativum
calorem ; animalis seipsum in
cerebro vegetans, & suas cel-
lulas transcurrans, in quæ

blance [catcheth the shape] of every
thing seen, heard, smelt, tasted, toucht
[felt ;] in that ether, viewing them
judgeth of them ; in this it storeth up
those resemblances for after-use, and
as occasion serves brings them out.

268. The duty therefore of the
common sense is to attend [mark ;]
of the fancy, to imagine ; of the me-
mory, to remember ; or if it have
forgot any thing, to call it to mind.

269. The same animal spirit doth
work [cause] local motion : whilst
running up and down through the
nerves, and filling the muscles, it
on this side stretcheth the tendons,
on that side it pulls them back : up-
on which stretching and pulling back
follows the motion of the part.

270. But being weary it seeks rest,
and therefore (having left the organs
of sense) hideth it self into its retire-
ments, which thing we call sleep :
and thus to sleep is nothing else, but
to have the senses at rest from their
outward workings, to the end that
the same spirits being wearied, and
scattered, and spent, may gather them-
selves again within themselves [re-
cruit.]

271. For the natural spirit is
then at most leisure for digestion ; the
vital repairs the in-bred heat ; the
animal refreshing it self in the brain,
and running up and down its cells, up-
on what vain visions it lights, it re-
phar-

phantasmata incidit, illa re- *assumes them to be view'd over,*
 assumit perspeculanda, quod *which we call a dream.*
somnium vocamus.

272. Tempestivus sopor re-
 creat nos, quia vires auctat;
 nimia vigilia fatigat, quia ex-
 haurit: nec tam impensè de-
 bilitat inedia, quàm insomnia.

273. Qui dormitavit, is o-
 scitat & pandiculatur: qui
 dormitat, is niçtat oculis, &
 nutat capite: qui dormit, so-
 mniat, & aliquando stertit: qui
 edormiuit, expergiscitur (seu
 evigilat;) expectatusque ex-
 pergefatur (seu excitat) alios.

272. Seasonable sleep refresheth
 us, because it increaseth [farthers,
 improves] strength; overmuch watch-
 ing wearieeth, because it exhausts:
 neither doth want of food so ex-
 ceedingly weaken, as want of sleep.

272. He that is sleepy, yawneth
 and stretcheth: he who slumbreth,
 twinkles with the eyes, and nods
 with the head: he who sleepeth,
 dreameth, and sometimes snorteth:
 he who hath slept soundly, is rous-
 ed up (or waketh of himself:) and
 being wakend, makens (or raiseth)
 others.

CAP. XXVIII.

Mens cum affectibus & con-
scientia.

274. Quia sensus percipi-
 unt præsentia tantùm objecta
 (& quidem superficialiè,) da-
 ta est mens; hoc est, vis ad ab-
 sentia quoque penetrandi, ab-
 strusa indagandi, futura præ-
 sagiendi: cum arbitrio peten-
 di bona agnita, & facultate
 audendi concupita.

275. Vocamus vim illam
 penetrativam, rationem, quæ
 rerum intellectum quærit:
 vim boni appetitivam dicimus

The mind with the affections,
 and conscience.

274. Because the senses take no-
 tice of those objects onely that are
 present (and indeed but superficially
 too,) a mind was given us; that is,
 a power [force, ability] of piercing
 into those things also which are ab-
 sent, of searching out things to come:
 with a will [choise] of desiring things
 acknowledg'd good, and an ability of
 venturing on the things desir'd.

275. We term that force of pier-
 cing into things, reason, which seeks
 out the understanding of things: that
 power whereby we desire that which
 volunta-

voluntatem, quæ rerum electi-
onem exposcit : vim confe-
standi desiderata nuncupamus
animum, qui rerum potestatem
ambit.

276. Hæc tria faciunt dif-
ferre hominem à brutis, imò
homines ab hominibus ; dum
alii plùs aliis, & meliùs, in-
telligunt, volunt, fatagunt.

277. Nam qui inquirat multa, est *industrius* ; qui arripit rem facile, *ingeniosus* ; qui excogitat, *solers* ; qui noscit, *gnarus* ; qui notitiam firmavit usu, *expertus* ; qui rebus novit uti, *prudens* ; qui utitur, *sapiens* ; qui abutitur, *astutus*.

278. Contra, qui nihil cu-
rat, est *foecus* ; qui nihil per-
cepit, *stupidus* ; qui tardè per-
spicit, *hebes* ; qui nihil per-
pendit, *improvidus*.

279. Quod quis *sensu* tenet,
id scit ; quod *ratione*, id intel-
ligit ; quod *fide*, id credit :
sed hic relatio verisimilis fa-
cit *persuasionem* ; probata, *as-
sensum* ; admissa sine probatio-
ne, *credulitatem*.

280. Quorum causam non
intelligimus, *miramur* ; quæ

is good, we *stille* the will, which doth
earnestly require the choosing of
things : we intitle the virtue of pur-
suing those things which are desired
the purpose, [mind,] which courteth
the power [mastery] of things.

276. These three make a man dif-
fer from brute beasts, yea men from
men ; whilest some understand, will,
and busie [employ] themselves more,
and better then others.

277. For he who enquires into
many things, is industrious ; he who
apprehends a thing readily [with ease]
is ingenious ; he that devises it [finds
it out,] is cunning ; he that knoweth
it, skilful ; he that hath settled his
knowledge by practice, experienc'd ;
he that knows how to use things, is
discreet ; he that doth use them, is
wise ; he that abuseth them, is crafty.

278. On the other side, he that
regardeth nothing, is careless ; he
that perceiveth nothing, is blockish ;
he that spieth out but slowly, is a
dullard [dunce ;] he that weighs
nothing, is without fore-cast.

279. What any man takes in by sense,
that he knowes ; what by reason, that
he understands ; what by faith, that he
believes ; but here the report being
likely causeth a persuasion ; being
prov'd, an assent ; being entertain'd
without evidence, credulity.

280. Those things, whereof we
understand not the reason, we won-
der-

p̄noscere volup̄e est; rima-
mur: sed vera perceptio rei dat
scientiam; falsa errorem; debi-
lis, opinionem; ex conjecturis
veniens, suspicionem; nutans,
dubitationem; impedita, ballu-
cationem; nulla, ignorantiam.

281. *Voluntatis* est, bona a-
mare ac velle, mala odisse ac
nolle; si quando fit, ut hæc
placeant & illa displiceant, est
ex accidenti: tunc enim exter-
na species decipit eam, ut eli-
gat deteriora, & spernat po-
tiora.

282. Nam ex aberrationi-
bus *intellektionis* veniunt erra-
ra *voluntatis*; & dehinc animi
conatus enormes, moliminá-
que irrita: quia ignorantia
boni affert ejus *neglectum*; fa-
tietas, *fastidium*; præservidus
amor, *zelum*.

283. Unde & reliquæ ani-
mi passionēs, seu *affectus*, ve-
niunt: nam si bona *absunt*, de-
siderat illa, optat, sperat, pro
adipiscendis nihil non tentat;
metuit tamen frustrationem,
atque, si videt differri, habet
tædium; si *adsunt*, gessit, læ-
tatur, plaudir, oblectatque se-

der at: such things as it is a plea-
sure to know thoroughly we pry nar-
rowly into: but apprehension of a
thing, if true, gives knowledge; if
false, error; if weak, opinion;
if proceeding from guess, a surmise;
if wavering, a doubt; being hinder-
ed, a mistake; if none-at-all, ig-
norance.

281. It is the propertie of the
will, to love and desire good things,
to hate and refuse the evil; if at a-
ny time it fall out that these (ill)
things please, and those (good) dis-
please, it is by meer chance: for then
the outward appearance deceiveth
her, that she chuseth the worse things,
and flights the better.

282. For out of the mistakes of
the understanding, proceed the er-
rors of the will; and from thence
(are) the unruly endeavours, and
vain undertakings of the purpose:
because the not-knowing of a good
thing causeth its slighting [disre-
gard;] too much of it, loathing
an over-hot love, zeal [jealousie.]

283. Whence the other passions of
the mind, or affections, doe also
proceed: for if good things are a-
way, it desireth them, wisheth, ho-
peth for them, for the attaining [get-
ting] of them tries every thing, yet
for all that it feareth disappoint-
ment, and if it perceiveth a delay,
it grows weary; if good things are

se perfruendo iis; saturatus tamen rursus illa fastidit; si eripiuntur, tristatur, dolet, queritur, poenitudine affligitur, desperat.

284. At mala inquietant eam magis, quæ *ventura* abominatur, formidat, tremiscit; advenientia horret, trepidat, aut stupefcit; postquam obvennerunt, irascitur, mœret, luget.

285. In alienis bonis & malis, non semper eodem modo affecta est: ibi enim gratulatur, aut invidet; hic commiserescit, aut (si perversa est) exultat & insultat.

286. *Mens* obversa sibi ipsi, & actionibus suis, dicitur *conscientia*: quæ, si pervidet se intellecta & electa bona secutam esse, reprobata verò mala aversatam, gaudet; sin, pavefcit, & fit contra seipsam *index*, testis, *iudex*, *tortor*.

present, it is jocund [frolick,] it rejoiceth, it applauds, and delighteth it self in enjoying them; yet being laded [glutted] again, loatheth them; if they are taken away, it is sad, it grieveth, complaineth, is afflicted with repentance, despairs.

284. But evil things do more disquiet it, which being to come, it abhors, fears, dreads; when they are coming on, it is afraid, shivers, or is astonished agast; after they are come, it is angry, it grieveth and mourneth.

285. In other mens good or ill fortunes, it is not alwayes after the same manner affected; for there, it rejoiceth, or envieth; here it pittieeth [taketh compassion,] or (if it be cross) it skips [leaps] for joy, and domineers.

286. The mind turned towards [upon] its own self, and actions, is call'd the Conscience: which, if it thoroughly perceiveth that she followed after the good things understood and chosen, and hath found the evils dislik'd, rejoiceth; otherwise, it shaketh [quivereth] and becommeth informer, witness, judg, and executioner against it self.

C A P. XXIX.

Accidentia præternaturalia, morbi; primò externi.

287. Secundum exteriorem

Things that befall the body beside nature; diseases; and first outward ones,

287. According to the outward aspectum

aspectum, quidam sunt corpulentati & obese; alii graciles, macilentati, & strigosi; quidam formosi, alii deformes, ac turpes (gibbus enim, struma, & quodvis tuber, deformant:) secundum interiorem habitudinem alii sunt firmi, alii invalidi, ac teneri.

288. Integræ functiones dant sanitatem, læsæ morbum: sive læsio fiat à mala conformatione membrorum (ut cum majora & minora sunt iusto, aut malè figurata, aut perperam situata;) sive à solutione continui (ut in vulnere, ulcere, luxatione, fractura, ruptura) sive à viciata crassi humorum (ut in morbis.

289. Malè figurati sunt, obstripi, ceruati, capitones, cilones, frontones, buccones, labiones, dentones; & qui habent nasum aduncum, vel reduncum (resimium) vel sinum; item gibbosi, strumosi, verrucosi.

290. Cui sunt parvi ocelli, ocella dicitur; unoculus, luscus; cernens oculis contortis, cocles; distortis, strabos; obliquatis & limis (ac alterutro minore) patus; semiclausis, & tantum admo-

appearance some are gross [puffy] and plump [fat], others slender, lean [meager] and lank starvings; some fair [beautiful,] others ill-favoured, and foul (for a bunch in the back, the Kings evil, and any swelling knob do disfigure:) in regard of the inward constitution some are strong, others weakly and tender [craxy.]

288. The Operations being intire cause health; being hurt disease: whether the hurt be caused by the undue framing of the parts (as when they are greater or lesser then's meet, or ill-fashion'd, or placed amiss;) or by a dis-union of parts (as in a wound, ulcer, wrenching, breaking, bursting) or a faulty mixture of humours (as in diseases.)

289. Those that are ill-formed [shaped] are, the wry-neck'd, downlookt, joulst-heads, copped-crown'd, high-fore-headed, chuffs [puff-cheek'd;] blobber-lip'd; snaggle-tooth'd: and those that have their nose hook'd, or crooked upward, or flat; also crook-backt, that have the King's-evil, or warts.

290. He that hath little eyes, is call'd pink-ey'd; he that hath but one eye, one-ey'd; he that looketh with rolling eyes, goggle-ey'd; he that looketh awry, squint-ey'd; askew and aslent, (and one eye lesser then the other) goggle-ey'd; with eyes half-shut, and discerus

ta videns, *myops*; non videns
ad lucernam, & caligans, lu-
sciosus.

291. *Mutus* est impotens
fari; (à congenita surditate);
trahulus R non pronuntiat;
blæsus malè sibilat; *balbus* hæsi-
tat: *nasutus* putatur odorari
acriter; *flaccus* esse bardus;
bucculentus ingluviosus; *cri-
spus* non calvescere facilè; *ru-
fus* canescere tardè.

292. *Mancus* caret manu;
ancus habet contractam; *sed-
gitus* redundat digito; *claudus*
claudicat; *pedo* habet pedes
longiores debito, *parva* latio-
res, *loripes* incurvos; *scæurus*
talos nimis exstantes; *varus*
crura divaricata; *vatus* in
medio extorta; *valgus* præ-
crassas furas; *compernis* sibi
atterit genua.

293. *Vulnus* fit cæsim, aut
punctum, aut morficatum,
(mordicus;) *plaga*, percussio-
ne aut contusione; *vibex* ver-
bere; *pustula* ustione; *pernio*
gelatione; *callus* induratione;
sed *livor* est signum plagæ; ci-

things onely near-band, pur-blind;
not seeing by candle-light, and blink-
ing, is a blinkard.

291. He that is dumb cannot
speak, (from a natural deafness;) a
lisper doth not pronounce R; a stam-
merer whistler but ill; a boggler
stuts: one that is bottle-nos'd is
suppos'd to smell [scent] well; one
that is loll-ear'd to be a dolt [block-
head;] one that is blub-cheek'd a
glutton; he that is curl-headed, not
easily to grow bald; he that is red-
headed, to turn gray but slowly.

292. He that is maim'd wanteth
a hand; he that is shrunk, hath it
withered; he that is six-finger'd,
hath a finger too many; he that is
lame halts [limps;] long-shank'd,
hath feet extraordinary long; splay-
footed, broad; crump-footed,
crook'd; swollen-ankled, ankles
standing too far out; bow-legg'd
[shackle-hamm'd,] shanks stretch
out like a pair of compasses; Taylor-
leg'd, bow'd out in the middle;
gouty-leg'd, very thick calfs; he
that is baker-knee'd, wears away
his own knees.

293. A wound is made by flash-
ing, or stabbing, or biting, (by snips;) a
blow, by smiting or crushing; a
red wheal by a stroke [lash;] a wa-
terish blister, by a burning [scald-
ing;] a kibe [chilblain,] by chiltness;
a brawn [thick-skin,] by hardning;

catrix

catrrix superest à curato vulnere.

but black and blew is the mark of a blow; a skar remains after a wound is cured.

294. *Ulcus* est subcutanea putredo: ejus suppuratio- nem vocabis *abscessum*; cen- trum verò ejus *vomicam* exstil- lantem pus, tabum, & saniem; at quod de loco in locum ser- pit, est *herpes*; quod circa se carnem exedit, *cancer*; quod eandem mortuam facit, *gan- græna*.

294. An ulcer is a corruption under the skin: whose gathering to- gether of matter you shall call an imposthume; but it's middle a core dropping out filth, gore, and matter; but that which creeps from place to place, is a wolf [ring-worm;] that which eats out the flesh round about it, a canker; that which deadens the flesh, a gangreen.

295. *Ozæna*, est suppuratio in naribus; *reduvia*, ad un- guës; *varioli* & *morbilli*, ubivis.

295. The *ozæna*, is a sore in the nostrils; *reduvia*, at the nails; the meazels and small pocks in any place.

296. *Luxatio* fit, cum ossa emoveantur suis acetabulis; *fractura*, diffringuntur; *ruptura* accidit membranis; facitque in peritonæo *herniam* (rami- cem,) h.e. procidentiam inte- stinorum in scrotum, &c.

296. A wrench is caus'd when the bones are removed out of their hollows; a breaking of them, when they are broke asunder; a rupture happens to the thin skins; and makes a burstness in the rimm of the belly (that is) the falling down of the guts into the cod, &c.

C A P. X X X.

Interni morbi.

The inward diseases.

297. Jam denarrabo mor- bos temperamenti, ordine fun- ctionum.

297. Now I will declare [relate] the diseases of the temper, in order of the operations.

298. *Ventriculus* si nihil ali- menti appetit, est *anorexia*; si plus nimio *bulimia*; si absur- da, *pica*; si assumta coquit imbecilliter, sunt *fluctuatio-*

298. The stomach if it desires no food, it is a want of appetite; if more then sit, a greedy-worm; if odd things, the green-sickness [or longing;] if it digests those things

nes; erumpentes sursum per singultus, aut per ructus; deorsum autem per flatus, aut etiam crepitus: si coquit pravè, vermes: si planè non coquit, sed rejicit per superiora, est nausea & vomitus; per inferiora verò, lenteria.

299. Si intestina non eji-
ciunt, dicitur obstructio alvi;
si cum torminibus in ilibus,
ilcos (seu iliaca passio, & volun-
tus, ubi cibus stercoribus per-
mixtus rejicitur ore;) si in
intestino crasso, colo, colica;
si verò defectio nimie crebra
est, diarrhœa; si sanguinolenta,
dysenteria; si pauca, & cum
difficultate (aut inani conatu
egerendi) tenasmus; si sursum
& deorsum, cholera.

300. Mesaraicarum venarum
obstructio, dat inflammationes,
melancholiam hypochondriacam,
& lentas febres.

301. Hepar si generat san-
guinem aquosum intercutem,
fit hydrops; si semicrudum, ca-
chexia, & pallor; si nimis a-
crem, scabies & papula; si que
occulta malignitas se admi-

which are taken but weakly, there a-
rise rejolts [wumbings:] breaking
forth upwards by hickocks, or by
belches; but downwards by foists,
or also farts; if it digests badly,
worms; if it doth not at all digest,
but casts it out by the upper parts, it
is loathing, and a vomiting; but
by the lower parts, a scouring.

299. If the entrails do not void,
it is called the being hard bound of
the paunch; if with gripiags in the
small guts, the Lord have mercie
upon me, (or the iliack passion,
and the knitting of the guts, when
the meat is cast out at the mouth
mixt with the excrements;) if in the
great gut, the colon, the wind-
colick; but if one goes to stool too
often, a lask; if besmeared with
bloud, a bloody-flux; if but little,
and with difficulty (or a vain en-
deavour to void,) costiveness; if
upward and downward, choler [vo-
mit and loosness.]

300. The obstruction of the mese-
raick veins, causeth windy swell-
ings, the hypochondriack melan-
choly [the spleen,] and lingering
agues.

301. The liver if it breeds waterish
bloud between the skin and the flesh,
makes a dropie; if half-raw, sick-
lineffe, and palenesse; if too tart,
scabs and wheals; and if a secret
scet,

fect, *scorbutus*, *lues venerea*,
lepra.

302. *Fel inficiens sanguinem*, efficit *auriginem*, (flavum scilicet *icterum* aut *nigrum*), *gracilitatem*, *tabem*: *lien* verò multas *fæces* colligens, inducit *sinistro lateri tumorem* & *schirrhum*; eadem autem derivans ad *ani exitum*, *hemorrhoides*; aliquando cum *procidentia ani*, aut *fico*.

303. *Serum*, detentum diutius in *ureteribus*, facit *lumbaginem*; in *renibus* & *vesica*, *calculum*; suppressa verò *urina*, excitat *ischuriam*; difficilis, *dysuriam*; guttatim exiens, *stranguriam*; sanguinea, *cruentam mictionem*; immoderata, *diabeten*.

304. *Assimilatio sanguinis* delati ad *membra nulla*, aut *paulula*, affert *martorem*: nimia, *inflationes* & *inflammationes* (quas vocamus in *tonillis* *anginam*: sub *lingua*, *ranulam*: in *venis*, *varicem*; in *cutē* *ubivis*, *eryspelas*;) prava, *impetigines*: in *facie* *lichenes*; alibi *vitilignes* (*lentigines*;) inque *capite* *porrigines*: sed *alopecia*, *calvities*, *cantities*, sunt à defectu *humidi radicalis*.

malignity mix it self, the *scurvie*, French *pox*, *leprosie*.

302. The gall infecting the blood, doth cause the jaundise (to wit the yellow or black jaundise,) lankness, and consumption; but the milt gathering many dregs, brings to the left side a swelling and a hard rising [knot;] but transporting the same to the passage of the fundament, the enirods: now and then with the falling down of the fundament, or the piles.

303. Urine, kept too long in the ureters, maketh a pain [ache] in the loins; in the reins and bladder, the stone; but the urine being kept, causeth a stoppage of it: hard (to void,) a difficultie of piss; issuing out by drop-meal, the strangurie [strangullion;] blondie, pissing of blood; immoderate, pissing a bed.

304. The assimilation of the blood convey'd to the limbs, being none at all, or but little, bringeth leanneß; too much, windie swellings and inflammations, (which we call in the almonds of the eares the squinzie; under the tongue, the ranula; in the veins, a vein broke; in the skin any where S. Anthony's fire;) being bad, ringworms; in the face, tetters; elsewhere, pimples [freckles;] and in the head, scauls: but shedding of the hair, baldness, hoariness, are from the defect of the radical moisture. E 4 305.

305. Reliquæ coctionum
ascendunt ad caput, indeque
defluunt in partes subjectas,
faciunt *distillationem* (catarrhum:) quæ, si delabitur ad
oculos, facit *lippitudinem*; si
ad fauces, *gravidinam*; si ad tra-
cheam, *raucedinem*; si exulce-
rat pulmonem, purulentâque
excreatio adest, *phthisis*; si
denique salsa illuvies detrud-
itur ad articulos, *arthritidem*:
quam vocabis in manu, *chira-
gram*; in pede, *podagram*; in
genu, *gonagram*; in coxendice,
sciaticam.

306. Motus cordis inten-
sus dicitur *palpitatio cordis*;
nullus, *animi deliquium*; re-
spiratio difficilis, *anhelatio*;
nimis frequens, *asthma*: tho-
rax eiectionis aliquid mole-
stum, excitat vehementi com-
motione *tussim*; cerebrum *ster-
nutationem*: at qui dormiunt,
supini vel proni recubantes,
facile infestantur *anhelitu*.

307. Sensu læsi, sunt *cæci*
& *cæcutientes*; *surdi* & *surda-
stri*; & quibus est obtusus
odoratus vel gustus; & qui
stupent, ut attracta non digno-
scant: interno sensu autem
nihil imaginari posse, est *stu-
por*; difficulter, *hebetudo*; ab-

305. The overplus of digestions
ascending to the head, and flowing
down from thence to the parts under-
neath, make a distillation [catarrh:] which if it falleth down to
the eyes, causeth bleer-ey'dness; if
to the jaws, the mumps; if to the
weazand, hoarseness; if it fretteth
the lungs, and there be a filthy spit-
ting [hawking,] the rissick; lastly
if a salt slime is thrust down to the
joints, the joint-gout: which in
the hand, you shall call the hand-
gout; in the foot, the foot-gout;
in the knee, the knee-gout; in the
hip, the hip-gout [sciatica.]

306. The motion of the heart be-
ing intent, is term'd the panting of
the heart; being none, & swooning
[dying away,] a difficult fetching
of breath, pursiness; too thick, a
wheezing: the breast being about to
cast forth something that troubles it,
by a violent commotion stirs up a
cough; the brain, sneezing; but
those who sleep lying with their face
upward or downward, are easily
troubled with short-windedness.

307. Those that are maimed in
their sense, are the blind and pur-
blind; the deaf and thick of hear-
ing; and those that have their
smelling or taste dulled; and those
that have no feeling, that they doe
not discern the things touched: but
in the inward sense to be able to
surda,

furda, *delirium*; (*delirium* conceive nothing, is blockishness; verò, cum adjuncta febris, with difficulty, duncery; *absurd phrenesis* est; cum tristitia, things, dotage; (but dotage with a *melancholia*; cum furore, *mania*;) nihil reminisci posse, fever joined unto it, is a frenzy; with sadness, melancholy; with rage, madness,) to be able to remember nothing, or hardly, is forgetfulness.

308. *Involuntarius motus unius membri, est convulsio*; one part, is a convulsion; if sudden and often quaking [*trembling* :] but razing the skin, chilness; shaking the bodie strongly, an epilepsie [*the falling-sickness* ;] waving stiff in a limb, the cramp; taken away from the whole bodie, an apoplexie; from one side, the one-side palsie; from one limb, the palsie: all which proceed from the obstruction of the nervos, and the flowing of the animal spirit being hinder'd; which if it be whirled about in the brain, is a meagrim.

309. *Somnus nullus aut paucillus, est insomnia*; no sleeping; too much, drowiness; a continual one, lethargie; with the breath stopped and a troublesome dreaming of some body lying upon one, the night-mare; he that riseth [*gets up*] in a dream, and walks up and down, is call'd a night-walker; he that is awake with his senses turn'd inwards, and his eyes not shut, and in a rapture of mind, an ecstatick [*one in a trance* .]

310. *Alii ergo morbi faciunt*

ciunt dolorem, ut *calculus*, &c. alii pruritus, ut *scabies*, &c. alii stuporem & insensibilitatē, ut *paralysis*; alii sunt acuti, citissime perimentes, ut *pestis*; alii lenti, diuturnitate affligentes, ut *phthisis*, &c. alii contagiosi, ut quævis *lues vaga*; alii affligant calore & frigore, ut in paroxysmo febris; quæ semel tantum veniens, *ephemera* dicitur; aliquandiu durans, *continua*; repedans per vices, *intermittens*: & hæc rursus vel *quotidiana*, vel *tertiana*, vel *quartana*; vel denique *pestilentialis*, *bubones* & *carbunculos* ejaculans; aut tandem latenter ac penitissime ossa depascens, *hectica*, incurabilis.

311. *Cephalalgia* infestat totum caput; *hemicrania*, alteram partem capitis; *odontalgia* gingivas (acutissime, cum infantes dentiant; quia gingivulæ scinduntur;) *pleuritis* pungit latera; symptomata verò moribundorum sunt, stertor letalis, membra infrigidata, procidentia oculorum, &c.

pain, as the stone, &c. others an itching, as the itch [*scab*], &c. others a numbness and insensibleness, as the palsy; some are sharp, immediately killing, as the plague; others lingering, putting one to a long pain, as the consumption of the lungs, &c. others contagious, as any common murrian; others torment by heat and cold, as the fit of an ague [*feaver*]; which coming onely but once, is called a feaver of a day; lasting for some time, a continual one; coming again by turns, an intermitting one; and this again, either a quotidian, or tertian, or quartan, or lastly, the spotted-feaver, shooting out botches and plaguesores; or at length, secretly, and most inwardly consuming the bones, an *hectick* not to be cured.

311. The head-ach doth molest, the whole head; the megrim, the one part [*side*] of the head, the tooth-ach the gums; most sharply when little children [*babes*] breed teeth, because their little gums are cut: the pleurisie pricketh the sides, but the symptomes of those that are about to die, are a deadly snoring [*rattling in the throat*], the limbs key-cold, the falling of the eyes, &c.

C A P. XXXI.

Defectus naturalium, cum monstris.

The defects of natural things, with monsters.

312. Natura decerrat inter-

312. Nature doth erre now and dum

dum in generatione rerum; facitque, ut in omni genere quædam abortiant; aut par-tum producant membris defe-ctis, vel superfluis, vel mon-
strosis; vel etiam degeneran-tem in aliud; quod scire etiam confert.

then in the generation of things, and causeth, that in each kind some prove abortive, or bring forth their young with too few limbs, or too many, or monstrous [ill-shaped] ones; or also degenerating into some other thing; which also it is profitable to know.

313. *Portentosa meteora sunt, cum pluit sanguinem, sulphur, lapides, ranas, & alia insolita; & cum igniti globi de-
cidunt; cum acies armatæ vi-
suntur in nubibus; similiâque
ostenta.*

313. Strange direful meteors are, when it raineth bloud, brimstone, stones, frogs, and other unusual things; and when fiery balls fall down, when armies are seen in the clouds, and such like strange sights,

314. *Item vegetabilia, cum triticum degenerat in secale, imò in lolium; hordeum in egi-
loperem; avena in avenam fa-
tuam, &c.*

314. Also vegetables, when wheat changeth kind into Rye, yea into darnel; barley into drudge, oats into wild-oats, &c.

315. *Monstrum in animan-
tium genere est, animal na-
tum biceps, aut triceps; bi-
corpor vel tricorpor: item
bigener, quales sunt muli, pro-
gnati ex asino & equa; leopar-
dique ex pardo & leona; &
hybridae, ex fero & domestico
sue.*

315. A monster is in the kind of living creatures, a living creature born double, or treble-headed; dou-ble, or treble-bodied; also of two kinds, such as are mules, begotten of an he-ass and a mare; and leopards of a libbard and a lioness; and mun-grels of a wild and a home-bred swine.

316. *Ex hominibus mon-
strosi habentur androgyni, qui-
bus est ambiguus sexus; & mu-
tuli aliquo membro; aut ex-
cedentes; aut alias insuetè
formati: quibus annumerare
licet immanes gigantes, nanos-
que pumiliones.*

316. Among men Hermaphro-dites [Will-Gills] are accounted monstrous, who have a doubtful sex, and those that are maim'd, or ex-ceed in any limb, or are otherwise unusually shaped; among whom you may reckon the huge giants, and the little dwarfs [dauidprats.] 317

317. Quod narrant de phœnice ave (exurente seipsam, & reviviscente è cineribus; (item de pelicano (vivificante pullos à serpente occisos;) & de boa, (serpente ad 120. pedes ex-crescente, integròsque devo-rante cervos;) & de hydra se-pticepe; & de gryphe, volucris quadrupede; & harpyiis, ob-scenis avibus; & de centauro, semihomine equo; & de py-gmaeis, cum gruibus bellige-rantibus, &c. videntur fabu-losa.

318. Fauni verò, homines silvani & hirsuti, semiviri & semiferi; tritones item & sire-nes; si figmenta non fuerunt, dæmonia fuerunt.

319. Transcamus ad huma-

na opera; ut videas quomodo

rustici in villis, opifices in op-

pidis, literati in scholis, trans-

ferant opera naturæ in usus

suos.

320. Officina ruralium o-

perarum est villa, cum hortis,

agris, pascuis: ubi curatur, ut

naturalia procreſcant feliciùs.

321. Hor-

317. What they report of the phœ-nix, a bird (burning herself, and re-viving out of the ashes; also of the pelican (giving life to her young ones kill'd by a serpent;) of the Boa (a serpent growing to the length of 120 feet, and eating up whole stags at a bit;) & of the sevenheaded Hydra: and of the griffon a fourfooted Bird; and of the Harpies, filthy birds; and of the Centaur, half-man half-horse; and of the Pygmies waging war with the cranes, &c. they seem fictions.

318. But the Fauns [Robin-Good-fellows] wild and shaggy hairy men, half-men and half-beasts; meer-men also; and meer-maids: if they were not fables, they were devils.

319. Let us passe over to humane

affairs, that you may see, after what

manner Countrey-men in villages,

Trades-men in Towns, Learned-

men in Schools do change the works

of nature to their own uses.

320. The work-house of country-

works, is a farm-house with gardens,

fields, meadows: where they take

care, that naturall things may more

happily grow.

321. Hor-

321. *Hortulanura* exercetur ab hortulanis; vel eduliorum causâ, in *olitorio* & *pomario*; vel deliciarum ergo, in *viridario* & *topiario*.

322. *Hortos* sepimus *sepi-mentis*: sive humilioribus; ut sunt *agger*, ex/congestio humo factus; *maceries*, è congerie lapidum acervata; *vacerra*, ex una & altera pertica constructa: sive altioribus, ut est *sepes* è sudibus & vitilibus plexa; vel *planca* è ligneis tabulis coagmentatæ; vel denique *murus* è cæmento & calce structus.

323. *Olitor*, saturus olera, elapidat terram, stercoratque; tum fodit ligone aut bipalio, adaggeratque pulvinos pala; & spargit semina per areolas; consarritque *rastellis*: tum rigat, post exherbat, hoc est, runcat manibus aut sarculis, adnatas impertinenter herbulas: tandem colligit matura oluscula, subsecando, aut evellendo, aut effodiendo.

324. *Arborator* plantat *plantarium*; dum conferit *seminarium* semine fructuum; aut depangit in terram taleas; aut serit *viviradices* decorè: qui-

321. Gardening is practis'd by Gardiners: either for food sake, in a kitchen, garden, and orchard; or for pleasures sake, in a green grass-plat and an arbour.

322. We fence gardens with fences: either lower ones; as are a mound made of ground thrown together, a stone-wall, piled up of a heap of stones; a rail set up of one or two poles: or higher ones, as is an hedge, platted together of stakes and trows [hedging-stuff, withes;] or planks, pack'd together of wooden boards; or lastly, a mud-wall, raised of mortar and lime.

323. The gardiner, being to plant his pot-herbs, rids the earth of stones, and dungs it; then he digs it with his spade or pattle-staff, and heaps up the beds with his shovel; and scatters the seeds over the plats; and rakes it with rakes; then he waters it, afterward he weeds it, that is, nips off with his hands or weeding-hooks, the little weeds impertinently growing by: at length he gathers his pot-herbs being ripe, by cutting [cropping] them, or plucking them up, or digging them up.

324. The fruiterer planteth a young orchard, with the seed of fruits: or sticketh into the earth grass-stocks; or setteth quick-sets handsomely: into which being cleft bus

bus diffusis inserit furculos, infirōsque oblinīt: & dehinc scalpro putat germina; expuat stolones; abnodātque nodationes, & amputat, si quid exaresieri cōeptum est.

325. Depurgat etiam muscosas, verminosas, formicosas arbores, à musco, erucis, avaneis: sideratas verò, cariosas, steriles, effætās, vel ablaqueat, seu circumfodit (summatim aut profundius,) rursūque circumaggerat; vel stirpitis eradicat: recisa siquidem, aut etiam excisa repullulant; evulsa non refruticantur.

326. Maturi fructus aut decidunt ultrò; aut carpuntur manu strictoris; aut decutiuntur perticā (si quò manus non pertingat;) aut excutuntur quassatione arboris, & colligantur à legulis: sed durabiliores sunt strictivi cadi-divis; serotini præcocibus; vegeti viētis; & conditivi crudis.

327. Eduntur autem recentes, (aliquando cum termite devulsi;) aut fracidi, aut torridi, ut sunt ficus aridæ, & ævæ solem passæ, majores & minores, &c. quidam verò naturā suā duracini sunt.

[*lit*] he grafts eyons, and being grafted in, he dambs them over; and afterward he pruneth off the young shoots with his pruning-knife; he lop-peth off the suckers; and cutteth away the knobs, and if any part begins to wither, pares it off.

325. He also cleanseth trees that are mossie, pester'd with worms, and ants, from moss, caterpillers, spiders: but blasted, rotten, barren, decay'd ones, he either bareth, or diggeth about (shallow or deeper) and again heaps earth about them; or pulleth them up by the roots: forasmuch as things lopt off, or also cut down, doe bud forth again; things plucked up, do not spring again.

326. Ripe fruits either fall of themselves, or are pluckt by the hand of the gatherer; or are beaten down with a pole (if in any place the hand cannot reach them:) or are shook down by the shaking of the tree, and are gathered by the pickers: but those that are pluck'd are more lasting then the fallings; the late ripe then the hastings; the fair ones then the shrivel'd ones; and the hoorded ones then the raw ones.

327. They are eaten either fresh [*new-gather'd,*] (sometime pulled off with the branch that they grow on:) or rotten-ripe, or parched, as are dry figs, and raisins of the sun, the bigger & the lesser sort, &c. but some are of their own nature hard-skinned.

328. Oleum exprimitur pressurâ *oliviarum*, in olearias ampullas: amurca verò subtus fidens, abjicitur una cum fratribus.

329. Topiarius apparat *viridarium*, è selectioribus floribus, rarioribusque plantis: & exornat hortum topiario opere, id est, amœnis ambulacris, virentibus pergulis, stibadiis, &c. denique salientibus fonticulis, hydraulis.

328. Oil is strained [squeezed] out by pressing of the olives, into oil-vials [jars:] but the oil-lees settling below, are thrown away with the dregs [husks.]

329. The pleacher prepares a green plot, of the choicer flowers, and rarer plants; and adorns the garden with pleach-work, that is, with pleasant walks, green allies, bow-ers, &c. to conclude, with purling [bubbling] fountains, and water-works.

C A P. XXXIII.

Agricultura.

Husbandry [tillage of the field.]

330. Agricola colit agrum panis causâ: hoc est, præparat arvom sementi; & obserit semine; frugésque demetit ac exterit.

330. The husband-man tilleth the ground for bread: that is, he prepares the field for seed, and sows it round with seed: and mows down the corn, and threshes it out.

331. Preparat, dum in solo inarato extirpat vepres, aratum verò stercoreat; ut fiat *ager restibilis*, idoneus conferi farreo spico biennii tempore: sed *vervactum*, (quod alternis tantum annis perferitur) & *novale*, (quod primum demum proscinditur, quia requieta & feracea sunt, haud indigent stercoreatione.

331. He prepares it, whilest in land unplow'd he roots up the bryers, but being plow'd he dungs it; that it may be a field every-year-sown, fit to be sown with grain for two yeares time: but fallow-land (which is sown only every other year) and land newly-broken-up (which is the first time plowed, because they lye lay, and are fruitfull, they stand not in need of dunging.

332. Arator bobus junctis ad aratrum, & agitatibus stimulo, tenet lævâ *stivam*, (nè inter arandum deliret) dextrâ

332. The plough-man with his oxen yoked to the plough, and driven with a goad, holds with his left hand the plough-handle [stelt,]

verò

verò vallam (quâ amoveat glebas :) interim vomer (insertus buræ) cum dentali, prosciindens terram, facit *fulcum*; quo peracto fit *versura*, toties redeundo sulcatim, donec *jugum* sit absolutum, *simus*que subaratus: tum enim rursus abjugat.

333. *Fundum* sic peraratum, aliquantò post offringit; tum iterat & terriat; atque, si *glebosus* est, inæquat; sive *cylindris* supervolutatis, sive *oceis* tractim raptatis: in uliginoso agro facit *elices* ad derivandam *uliginem*: demùmque habet *arvum*, agrum paratum.

334. Hinc *sator* seminat per areas *sementicum* frumentum (quod non debet plusquam *anniculum* esse;) peractâque *seminatione* inocat; tum *sarrit* sata, dum *fruticescunt*, ne à *zizaniis* suffocentur. (*Frumentum* *sementivum* vere satum, dicitur *alicastrum*; *miscellaneum*, *farrago*.)

335. Quando *segetes* flavescunt, *messis* adest: ubi

(that he may not, as he plows; balt [run besides the furrow:] but in his right hand the plough-staff; (with which he removes the clods :) in the mean while the plough-share (fastened into the plough-beam) with the coulter, cutting the ground, makes a furrow; which being done there is made a turning at the lands end, returning so often furrow by furrow, till the acre be finished, and the dung under-furrowed: for then he unyokes them again.

333. The ground being so ploughed throughout, a little while after he carfs it; then he plows it again, and gives it a third earing; and if it prove cloddy, he plains it; either with rollers rolled over it, or with harrows hurried and drawn over it: in a wet [oozy] ground he makes trenches, to drain away the wetness: and at length he hath a corn-field; land prepar'd.

334. Then the sower soweth upon the plats seed-corn, (which must not be above a year old :) and when he has done sowing, he harrows it in; then he weeds the corn, when it grows into ears [shoots up into blades,] lest it be choaked by tares. (Seed-corn sown in the spring, is call'd *mark-corn*; *masslin*, *dredge*.)

335. When the standing-corn looks yellow, harvest comes: when
messores

messores demetunt frumenta *falcibus*; demessâque disponunt manipulatim, & manipulos colligunt rastris in mergites, colligantque tomicibus; & congerunt acervatim per quindenas: & injiciunt prehensos merga plaustris, & convehunt in horrea, (aut saltem congestant in nubilarium) spicilegio relicto egentibus, stipula verò pascuis.

336. Tum tritores tritulant frumentum *flagellis*, in area: (olim tribulabant, hoc est, tribula exterebant, seu excubabant;) excussâque grana subiacendo ventilabris, emundant à paleis, & pennato verriculo expurgant ab aceribus (pennis enim acerosus quem deletet?) & secernunt incerniculo à recrementis; demumque instipant fassis, & inferunt opulentiores granariis, pauperiores *cumeris*, hostem metuentes *cryptis*: stramenta reliquantur in fascis.

337. Hæreditarius possessor *fundi* elocat quandoque colono *prædium*, (locator conductori,) pro annuâ pensione; aut usum fructum *mancipi* ad aliquot annos (ubi prædes postulari & accipi solent;) aut *partiario*, ad dividendos

the reapers reap down the corn with sickles, and being mow'd lay it orderly by gavels [handfulls,] and with rakes gather the gavels into sheaves; and bind [tie] them with bands; and gather them on heaps, by fiftens [stacks,] and catching them up with a pitch-fork, fling them into carts; and carry them into barns (or at least throw them together into a rick,) the gleanings being left for the poor, but the stubble for pastures.

336. Then the threshers do thresh the corn with flails, in the floor: in time past they did beat it out, that is, rub it out with a threshing-cart, or tread it out:) and by winnowing with fans the out-struck grains, they clean it from the chaff, and with a wing clean it from the tailings; (for whom can unwashed bread delight?) and sift it in a sieve from the gurgins, and at length put it into sacks, and carry it, rich folks into garners, poor folks into corn-vessels, those that fear an enemy into vaults; the straw is bound up into bundles.

337. An hereditary owner of land now and then lets out a farm to a farmer, (the lesser to the lessee [the landlord to the tenant,]) for a yearly rent; or the use and benefit of it to a tenant for years, (in which case sureties are wont to be demanded and accepted;) or to a partner

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pro-

proventus; aut *villico*, ad villicandum pro condita mercede.

for dividing [sharing] of the incomes; or to a bailiff for the managing of husbandry for set wages.

C A P. XXXIV.

Pecuaria.

Grazing, or looking to cattel.

338. *Pecorarius* est, qui pecorum curâ victum quærit: putà *lacticiniis*, *lanicio*, & *carnibus*: providet ergò (per pecuarios) *pecoris futuram*, *stabulationem*, *pabulationem*, &c.

338. A *grazier* [heards-man] is he who by looking to cattel, gets his living: as, by white-meat, wool, and flesh; therefore he takes care (by those that tend the cattel) for the cattels breeding, stalling, pasturing, &c.

339. *Pecûdes* fœtant feliciter, si *matrices* sunt *seminis boni*.

339. Cattel breed luckily, if their wombs be of a good breed.

340. *Stabula* sunt *ovile*, *caprile*, *suile*, *bubile*: & *caulæ* *tralatitiæ* *mandræ*, quibus solet includi noctu *ovinus grex*, ad *agros ordine stercorandum*; sed *alicubi pastoritia* *turba* etiam *mapalia* *sua carrucis circumvehunt*.

340. The stalls are a sheep-fold, a goat-house, a hog-stie, an ox-stall [cow-house:] and folds removeable sheep-coats [burdles,] in which at night the flock of sheep use to be pent up to dung the fields in order; but in some places the company [crew, gang] of shepherds carrie about also their hovels in carts.

341. *Pabula* sunt, vel *recentia pascua*, (quo *greges* & *armenta* per *publicos actus* solent prodigi, & in *compascuis locis compasci*; si verò *unus pastui* non sufficiat, hinc inde *dispercit*;) vel *domi ministrata*, *herbacea*, *paleacea*, *stramentitia*; interdum & *frumentacea*.

341. The pasturings are, either fresh pastures, (whither the flocks and herds by publick acts use to be driven, and fed together on commons; but if one place be not sufficient for their feeding, to be parted up and down;) or things serv'd them at home, of herbs, chaff, straw; sometimes also corn.

342. *Prata* dicantur *sæno*: sique *siccanea* fuerint, *irrigantur* *corrivatis rivulis*: ubi

342. Meadows are set apart for hay; and if they be drie, they are watered by running streams: where
gramen

gramen defectum seculis, aggregatur per strigas; siccatum corraditur rastris in cumulos, & acervatur bidentibus in metas; denique vectatur vehibus ad scenilia: è renascente gramine fit chordum.

343. *Bubulcus* exhibet pabulum suis bubus (dum in præstegis, aut quibuscunque septis stabulantur,) in præsepi vel cratibus; sicut & equis, agaso, mulio, suo equino, asinino, mulionióque armento; *subulcus* verò suis subus in aqualiculo: *caprarius* pascit capellas suas virgulis frondium.

344. *Opilio* (apparatus pedito & flagro, imò & molossis, quos contra lupos communit millo :) educit pastum suam oviariam, in qua quoque habet suum peculium, insignitum caractere peculiari: tempore verò tonsuræ oviculæ lavantur, & à constrictibus tondentur, vellusque detonsum lanariis venditur.

345. *Vaccae* præbent lac: quod villica mulgenda excipit *mulctra*; è mulctrali verò infundit sinis per colum: postmodum demit pinguedinem innatantem, & inde conficit

grass cut down with scythes, is gathered by swaths; being dried, it is raked together with rakes into heaps, and is pitched with prongs into cocks; at last it is carried in carts to the hay-stacks: of grass growing up again comes the inmath [rowings.]

343. A neat-herd gives food to his kine (whilst they are stalled in out-houses; or any other inclosed places, in a crib [manger] or racks; as also the groom, ass-keeper, mulctier doe to their drove of horses, asses, and mules; but the swine-herd to his swine in a trough: the goat-herd feedeth his she-goats with the twigs of green boughs.

344. The shepherd (being furnished with a sheep-hook and whip, yea and mastiff dogs; which against the wolves he guards with a collar) leads forth his flock of sheep to feed, among which he hath his cullet [a flock of his own,] branded with a peculiar mark: but at the time of shearing the little sheep are washed, and sheared by the shearers; and the fleece shorn off is sold to the staplers [clothiers.]

345. Cows give milk: which the milk-maid by milking takes in her pail, but she pours it out of the milk-pail into the milk-pans through a strainer: the next day after she skims the cream which swims on the top,

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(suc-

(succussatione vasis) butyrum, remanente ory gala.

346. E secundario lacte densato ope coaguli, format in caseariis formis caseos (vacinos, caprinos, ovillos,) aut pressas manu solum metas; iterum defluente sero: tandem deficcet caseos in caseali.

347. Pecudes destinatae mationi segregantur ab aliis, opimanturque sagina in sagnario: utque pinguescant melius, genitalia illis inciduntur; unde arietes, majales, capones, &c.

348. Quia vero pecudes quandoque fiunt morbidæ, (oves pulmonariæ, sues grandinosæ, boves coriaginosi, equi hippomane infestati, &c. *veterinaria medicina* non est ignoranda illi, qui rem pecuariam curat.

349. Pecoribus accensentur aves cohortales, quæ in cortibus, gallinariis, columbariis, aluntur, & è quibus plumæ velluntur, pro lectulis & culcitris explendis: deinde pisces piscinarii, qui asservantur in piscinis, seminariis, vivariis, &c.

350. Apes emittunt examen quotquot annis, cum addito

and from it (by churning) makes butter, the butter-milk remaining.

346. Of the second [two-meal] milk being curdled by the help of runnet, she makes in cheese-fats cheefes (of cow, goats, sheeps milk) or cheese-curds crushed only with her hand; the whey running out again: at last she dries the cheefes in a cheese-loft.

347. Cattel appointed for slaughter are separated from the rest, and are plumped with fattening meat in a frank: and that they may grow fat the better, they are gelded: whence are weathers, barrow-hogs, capons, &c.

348. Now because cattel now and then prove diseased, (the sheep rotten, the swine mearled, oxen bidebound, horses troubled with the staggers, &c.) he must not be ignorant of the farriers [horse-leaches] physick, that looks after the business of cattel [grazing.]

349. Among cattel may be reckoned poultrery, which are fed [kept] in pens [coops,] hen-roosts, dove-houses, and from which feathers are plucked, to stuff bolsters and bed-ticks: then your pond-fish, that are kept in fish-ponds, store-pools, weirs, &c.

350. Bees send forth swarms every year, with a leader added to duce

duce (*regem vocant*) ut quærant novum *alvear*; struendo crates cellulis sexangularibus, & complendo melligine, faciant *favos*; è quibus (*tempore mellationis*) mel sincerum effluit: crates verò liquantur in *ceram*. (*Saccharum est factitium mel*, excoctum è *medulla cannarum Indicarum*.)

them (*they style him the King-bee*) that they may look out for a new hive; by building the sticks with six-corner'd little cells, and that by filling them with honey-dew they may make honey-combs: out of which (*at the time of the taking honey out of the hives*) flows live-honey: but the ribs are melted into wax. (Sugar is a made honey, boiled out of the juice [*pap*] of Indian canes.)

C A P. XXXV.

*Artes alimonie frumentaceæ.*Trades of corn-provision
[whit-meat.]

351. Jam inspectemus operas *mechanicorum*, qui introducunt novas formas rebus naturalibus, pro comparandis variis commoditatibus vitæ.

351. Now let us look [*pry*] into the works of handy-crafts-men, who bring new shapes upon natural things, for attaining the several accommodations of life.

352. Ejusmodi machinationes fuerunt primæ, circa victum frumentaceum, *ptisanaria*, *molitoria*, *pistoria*.

352. Such were the first contrivances, about food made of corn, the pounders, grinders, bakers trade.

353. Antiquitus tundeant solummodò *pistillis* in mortario, accipientes inde *ptisanam*: deinde pinsebant in *pila pilo* (*ruido*, aut *Græco*,) undè prodibat *alica*; quorum officina fuit *pistrinum*.

353. In old time they did only pound corn with pestles in a mortar, taking from thence the ptisan; afterwards they did bray it in another kind of mortar (*with a rough*, or *Greek pestle*) from whence proceeded groats [*cuttings*]; whose work-house was a bake-house.

354. Postea sunt excogitata à machinatoribus *moleæ farinariae*: ubi circumagitatus velociter lapis mobilis super

354. Afterwards corn-mills were found out by engineers; where a moving stone being turned about swiftly upon an immoveable one,

immobilem, comminuit frumenta in farinam; ciliatunum vero exussorium, excernens poltinem, in farinarium eiecit; fursurem & appludas aliò.

355. *Molæ* istiusmodi erant primum manuarie (trusati-les;) succedebant jumentarie (asinarie;) hodierno die utimur alatis, vento versatilibus; & aquariis, ad quas aqua derivatur, posito objectaculo in flumine; sed ad majores aquas sunt *moletrine* binæ, trinæ, quadrinæ; unde molitoribus pro molitura tanto plus emolumenti accedit. (*Amylum* est farina sine mola, facta sola maceratione, & excultatione.

356. *Pistor* cernit iterum farinam, farinario cribro; affusâque aqua, & fermento, subigit ligneam spathâ; & depit massulas (decertas de subacta massa, aut abrasas de niactra,) quas impositas palæ, ingerit furno per furnium (sed unde prius ignem proruit rutabulo; quia non coquit panes subcinericios, ut olim;) atque ita fit panis filigineus, aut simiagineus, quandoque etiam bis coctus (buccellatus,) ne muceat: fermentatus habet, durs crustas, medullamq; intus porram; *axymus* est densior & laticior.

grinds the grist into meal; but a hair-scarce sifting the flower; throws it forth into the meal-trough; the bran and gurgins to some other place.

355. Such mills were first hand-mills [querns;] horse-[ast-] mills followed next: at this day we use wind-mills, turning with the wind; and water-mills, to which water is convey'd [brought,] a dam [or sluice] being set in the river: but upon greater waters there are two, three, four mills; whence so much the more gain [profit, toll] accrew to the millers. (Starch is meal made without the mill, only by steeping and bulking the wheat.)

356. The baker boulds the meal again in a boulding-sieve, and water being poured to it, and leaven, he kneads it with a wooden slice: and moulds loaves [cakes] pulled or cut off from the dough, or scraped from the kneading-trough, which being put on a peel, he sets into the oven through the mouth of the oven (but first he rakes the fire from it with a scovel [mankin;] because he doth not bake bread with ashes underneath as heretofore;) and so it becomes white bread, or manchet, and sometimes also bishet, lest it grow foistie [mustie:] leavened bread hath a double crust, and the crum light [puft.] within: unleavened is more close and tough.

CAP.

CAP. XXXVI.

*Artes carneæ alimonie.*The trades of flesh-provision
[flesh-meat.]

357. *Obserua porro artes procurantes carneam alimoniam ex animalibus vescis: piscatoriam, aucupatoriam, venatoriā, lanioniam, coquinariam.*

358. *Piscator obfidiatur piscibus variè: majores superatantes confodit fuscina; minores obnatantes illicit scirpulis, aut demersis nassis (in nassam ingresso non datur exitus:) profundiores extrahit ex amne sagenâ aut fundâ; è lacu tragulâ & verriculo: (quæ infernè mersantur ab appensis plumbeis massulis, supernè allevantur subereis: laxitatem verò macularum habent diversam, pro granditate piscium.*

359. *Dein partem piscium dividit, partem concludit in secluforiis, (ut cum opus est depromat excipulo) partem condit muria pro salsamentis: (hamiota piscatur hamo, cui inditam escam quisquis admorsit, captus est.)*

360. *Auceps (aucupator) aut exstruit aream, reti*

357. *Moreover take notice of the trades which procure us nourishment of flesh from creatures such as are mans meat: fishing, fowling, hunting, butchery, cookery.*

358. *The fisher doth several wayes lie in wait for fishes: the greater ones swimming on the top he strikes through with an eel-spear; the lesser swimming thwart, he intraps with little snares, or weels sunk under water (there is no getting out for a fish got into the weel:) those which lie more deep he draws out of the river with a bow-net, or casting-net; out of the lake, with a trammel and draw-net: (which are sunk downward by the leaden plummetts that hang on them, are kept above water with corks: but they have a several hideness of the meshes [holes,] according to the bulk of the fishes.)*

359. *Then part of the fish he sells, some he shuts up in his shutts (that as he needs he may take them out with a purse-net) part he pickles for salt-fish: (an angler fisheth with a hook; whatsoever fish bites the bait that is upon it, he is took [caught.]*

360. *The fowler (about to fowl [catch birds]) either maketh a*

aucupatorio superintectam, cui escam offundit; ipse verò se abdens in latibulo, allicit fistula: vel illicum cantu, transvolantes aviculas; advolantesque adobruit, circumretit; aut implicat *viscatis calamis*, expositis amiti, dum illis insidunt; aut impedit *pedicis*, *tendiculis*, & *decipulis*; illaqueatque laqueorum transferenis; aut iis immittit prædatrices aves: & quas videt incolumes (quocunque aucupio captas) includit *caveæ*, ibique pastionem præbet in *canaliculo*, potionem in potistri.

361. *Venator venatur feras*, dum aut pellicit in scrobes foveasque, & venabulo transadigens interficit: aut vestigat odoratu sagacium canum: (odoratores enim nictendo indagant, & è latebris expellunt; *vertagi* autem numellis exsoluti, & venatorio cornu incitati, persequuntur:) aut cingens arbusta *indagine*, perpellit in casses; quodque vivum capit, transfert in *vivarium*.

362. *Lania* mactaturus al-

shrape covered over with the fowling-net, on which he pours the meat; but he hiding himself in a close place; inticeth the little birds flying up and down with a whistle [call] or with the singing [playing] of decoys: and those that flie to it he surprises, casteth the net over [hampers:] or intangleth them with lime-twigs, set forth on a pole [perch] when they sit upon them; or ensnares them in ginns, pitfalls, and traps [springes:] and halters them with the noozes of snares, or throws off at them birds of prey; and those which he sees safe (being taken by any fowling whatsoever) he shuts up in a cage; and there gives them meat in a little trough, drink in a water-pot.

361. The hunts-man hunteth wild beasts: whilest he either allureth them into ditches and pitfalls, and running them through with an hunting-staff he kills them: or traceth them by the sent of the well-sented dogs: [for hounds [draught-[bloud-] hounds] seek out by opening, and chase them out of the dens: tumblers being let loose from their slips, and encouraged by the hunters: [bugle-] horn, pursue [run after:]) or besetting the thickets with an hay, he forces them into toils; and what he gets alive, he puts into a park [warren.]

362. A butcher being about to
tilia

tília (non vescula, vel morbida,) deducit in lanienam, ibique prosternit clavâ, mox jugulat clunaculo, & excoriat, seu deglubit, conciditque frustatim: sues tamen prius perfundit candente aquâ, glabrâtque radulâ; mox dissecat in pernas, petasones, succidias, offas, penitas: concisissque visceribus minutim, effareit suino cruore farcimina; tum crassiora, apexabones, tomacula, (seu isicia,) & faliscum; tum graciliora, botulos (Lucanicas) & billas.

363. Veneunt igitur in macello communiter bubula, vitulina, vervecina, hœdina, againa, suilla; rarerer bubulina, aprugna, vel alias ferina.

364. Coquus coquit esculenta omnis generis: aves tamen deplumat prius, & exenterat; pisces desquamât & exdorsuat, interdum & exoscat; induratos contundit tuditibus, salitos macerat aquâ, &c.

365. Elixanda elixat ollis & cacabis, catillisve, operculo rectis; elixata condit sale, & aromatibus (comminutis pistillo in mortario, aut cor-

kill fatlings (not lean meats or diseased) brings them into the slaughter-house, and there knocks them down with a club; then he sticks them with his knife, and flays them, or pulls off their skins, and cuts them out by pieces: but he scalds swine all over first with hot water, and scrapes them with a scraping-knife; afterwards he cuts them into pestles, gammons, flitches, harslets; and the intrails being shred into small pieces, he stuffeth puddings with hogs blond; both thicker ones, black-puddings, liver-puddings, (or links,) and haggels, and also the thinner ones, sawsages, and chitterlings.

363. There are sold then in the shambles commonly beef, veal, mutton, kid, lamb, pork; very seldom buffal, brawn, or otherwise venison.

364. The cook dresseth meat of all sorts; but yet he first pulleth birds, and draweth them; he scaldeth fishes, and splitteth their backs, and now and then plucks out their bones; he beateth the dried ones with hammers, the salt ones he steepeth in water, &c.

365. He boileth things that are to be boiled in pots and kettles, or posnets covered with a lid: being boiled he seasoneth with salt and spices (bruised with a pestle in a quaffatis

quassatis rudiculâ in catino, aut tritis super radulam :) assaturas trajectat lardo, & assat verubus (super crateuteria versabundus) suppositâ sarvagine, nè pingue eliquans pereat: aliqua etiam torret super craticulam, aut frigit in lebetes seu fixorio; (at si prænimum, sunt cremia:) è particulatim confectis carnibus facit *minutal*, *piskillos*, *turundas*.

366. Si quid effervesceat ac bullit, futat trulla, nè ebulliat; si spumat, despumat *tudiculâ* aut *rudiculâ*: fusciculâ verò extrahit fervida; fuscellâ colat jusculenta.

367. *Ciniflo*, ut accendat ignem, habet *ignarium* cum *fomite*, *sulphuratis*, *silice*, & *chalybe*: tum sufflat buccis, aut flabello, prunas collectans *battillo*: *focaria* verrit *culinam*, & everrit scopis *quisquillas*, purgâque coquinaria vasa: quæ cum colluuntur, fit colluvies, eluenda per *fusorium*, ut effluat.

368. Eadem res alit magis *jurulenta*, quàm *assa*; magis

mortar, or shaken in a platter with a ladle, or grated upon the grater:) he lardeth roast-meat with lard, and roasteth it on spits, (which are to be turned round upon cob-irons,) and a dripping-pan being set under, lest the fat melting [distilling, dropping] should waste: some things he also broileth on a gridiron, or fryeth in a frying-pan, (but if overmuch, they are burnt to a coal:) of meat shred into small pieces he makes mince-meat, tid-bits, jiggets.

366. If any thing be seething-hot and boils, he lades it with a ladle, lest it should boil over; if it gathereth scum, he scummeth it off with a scummer or slice: but he draws out hot things with a flesh-fork; he strains things sod in broth with a cullander [strainer.]

367. The fire-maker that he may kindle the fire, hath a tinder-box with tinder, matches, a flint, and a steel: then he blows with his cheeks, or with a pair of bellows, gathering up the live-coals in a fire-shovel: the kitchen-maid makes clean, and sweeps away the sweepings with a broom, and scowreth the kitchen-vessels [brass and pewter:] when they are washed a slabber is made, to be washed away through the sink-hole, that it may have passage.

368. The same thing doth nourish more being boiled with portage, then *assa*.

assa, quàm frixa : tosta verò, infumata, muriatica, est difficilis concoctionis, nisi adjunctu juris piperati, aut juris nigri, juris spissi, juris gelati, vel alicujus intinctus ; verum tuceta, artocreata, tortæ, ad placitum fiunt.

roasted ; more being roasted, then fryed : but being fryed, hung, powder'd, is hard of digestion, unless by the help of pepper-broth or black-broth, thick-broth [sows,] gelly, or some pickle [sawce:] but gallimaufries, pasties, tarts, are made at pleasure [as one will.]

CAP. XXXVII.

Artes potulentorum.

The trades of things belonging to drink.

369. Naturalis potio est aqua, (fontanæ, puteanæ, fluminea;) tum lac, serumve lactis : dehinc didicerunt parere inebriantes potus, temeta; ut mulsum, poma tumque mustum : tandem invaluerunt, vinum, cerevisia, crematæque vina, quæ quomodo fiant videamus.

369. The natural drink is water (spring-water, well-water, river-water;) then milk or whey : after that they learnt to get fuddling drinks, strong drinks; as meath, and cyder : at last wine, beer [ale,] and burnt wines [brand-wines] came in fashion, which after what manner they are made let us see.

370. Vinitor plantat vineam : dum obserit collem apricum novellis viticulis; aut propagat vites veteranas traducibus; aut earum cacumina mergit terræ, ut utrinque radicetæ, post discissæ, duæ fiant.

370. The vine-dresser planteth a vineyard : whilst he set a sunny bank with little young vines, or spreadeth the old vines by their shoots, or sticks the tops of them under ground, being rooted on both sides, and afterward cut asunder, they may become two.

371. Tum deputat vitem quotannis, (nè sterile scat ubertare,) ut è resece pullulent novi palmites : qui cum raro per se surrecti sint, (licet capreolis quicquid possunt

371. Then he pruneth his vine every year (lest it should by over-bearing) that new tendrels [sprigs] may bud out of the pruned branch : which sith they are but seldome raised [upright] of themselves (though

appre-

apprehendant) arrigit eos, & alligat statuminibus : (nempe arboribus, aut pedicis, aut transversis cantheriolis, & jugis : unde *vitis arbutiva*, *pedata*, *cantheriata*, aut *jugata* dicitur.

372. Pastinat item vineam *bidente*, & repastinat; mox pampinat; tandem vindemiat: racematione pauperculis relicta.

373. Botros, scapis abscissos, comportant pytinis, in *torcularium*, conjiciuntque in forum vinarium; tum calcant pedibus, aut contundunt ligneo pilo, & effundunt in lacum: unde mustum defluit per qualos in orcas: reliquis uvor ex acinis exurgetur torculari: sed (vinum) lixivum est suavius tortivo; musteum dulcius liquato; meracum fortius diluto; album magis caloricum rubello, aut helvolo.

374. Abditur in cellas, *cadis* & *doliis* elevatis super cantherios; tum relinitur, & promitur *siphunculo*, aut *epistomio*; interdum quoque elutriatur: sed hornum feculentum est; annorinum defeca-

they catch hold of any thing they may with their little twigs) he raises them, and ties them fast to staves: to wit to trees, or props, or cross-beams and frames: from whence it is call'd a climbing, propt, cross-bar'd, or framed vine.

372. He delves the vineyard also with a two-tined-fork, and delves it again; then he pruneth it; at length he gathers the vintage, the gleanings of the boughs being left for the poor.

373. They carry the clusters of grapes, cut off from the stalks, into the wine-presses in baskets, and sling them into the wine-trough; then they trample on them with their feet, or bruise them with a wooden pestle, and pour it into the keel-fat: from whence, new-made-wine runs through the strainers into the fats: the rest of the juice is strained out of the kernels by the press: but (wine) running out of the grapes before they be pressed is more luscious than that which is pressed; wine in the lees more pleasant than ract: neat wine more strong than mixt wine; white wine more warming than red or claret.

374. It is laid up close in cellars, the hogs-heads and butts being raised upon stalls: then it is broached, and is drawn out by a gimlet, or tap [cock:] and sometimes also it is ract: but wine-of-this year [vintage] is dreggish; being of a-year-old it is

tum :

tum : defrutum vocant *sapam* ; exoletum *vappam* ; ex aqua & vinaceis factum *loram* (vinum acinaceum ;) ex aqua & aceto mixtum, *poscam*.

375. Præstantiora vina sunt, *apianum*, *malvaticum*, *Canarium*, *Alicanticum*, &c. sed *abſinthites*, *helenites*, aliâque medicata ; factitia sunt *hippocras*, omnia aromaticorum delicatissimum.

376. *Lupularius* inservit cocturæ *zythi*, dum indens *turiones lupuli* terræ *liratim*, ad singulos cauliculos depangit pallos, ut circumplicando se his serpent sursum : quorum flores abstringit, quum maturuerunt.

377. *Polentarius* macerat grana frumenti, donec intumescent : tum assiccat in pavimento, versat & reversat sæpius, usque dum dissiliendo cœptent producere germina ; atque tum ea torret superstrata *farrario* *fumario*, convertitque in *hynem* *dulciculam*, & permolit *polentario* *molendino* in *polentam*.

378. Tum *cerevisarius* permiscens *lupulani* *polentæ*, excoquit in *aheno* *cerevisiam* (uno factu decem, viginti, triginta *cupas*) quæ in cellam

pure : *wine-boyled-to-the-third-part* they call *sapa* : being stale it is dead-wine ; made of water and the husks of grapes, *picquet* ; mixt of water and vinegar, *posca*.

375. The better (sorts) of wines are, muscadel, malmsey, canary, alicant [tent,] &c. but wormwood-wine, enula-campana-wine, and other medicinal wines, are artificial : hippocras, is the most pleasant of all spiced wines.

376. The hop-merchant serves for brewing of beer [ale], whilst fastning into the ground hop-roots in ridges, at the several stalks he sticks poles, that by twining about them they may grow upward the buds [blossoms] whereof he strips off, when they are grown ripe.

377. The malster soaketh the grains of the corn, until they plump ; then he dryeth them on a floor, and turneth them to and fro very often, until by bursting they begin to sprout ; and then he dryeth them being spread over a malt-kin, and turneth them into sweetish malt, and grindeth them in a malt-mill to [malt-]meal.

378. Then the brewer mingling the hop with the malt, boileth in a brass [cauldron] beer [ale] (at one gail [brewing] ten, twentie, thirtie barrells) which being carried down
depor-

deportata defecatur : si verò acceſcat, aut muceſcat, infunditur aceteriis *ampullis*, & fit *acetum*.

379. Tandem *diſtillator* projicit igne è fecibus cereviſiæ, aut vini, vel etiam fermentato farre, exſtillatam (per cupri-
nam veſicam deſtillatoriam, ſuperimpoſitumque *alembicum*) ardentem aquam, diſtam vinum crematum ſeu ſublimatum.

into the cellar works it ſelf clear : but if it grow ſower, or muſty, it is poured into vinegar-bottles, and becomes vinegar.

379. At length the diſtiller draws with fire from the grounds [dregs] of the beer [ale] or wine, or alſo leavened corn; but water called brandy-wine or ſpirits of wine diſtill'd [dropt forth] through a copper ſtill, and an alembick ſet over it.

C A P. XXXVIII.

Veſtiariæ artes.

380. Ad tegendam nuditatem adverſus tempeſtates opus nobis eſt *amictu* : qui ſimplex fuit antiquis, acquieſcentibus velare caput à ſole *cucullo*, corpus ab algore *bracca*, pedes à cœnoſâ aut ſcrupoſâ viâ *ſculponeis*, vel *crabatinis* : noſtro ævo omnia aliufmodi, uſque ad luxuriam nitidè, & habitu multiformi, *ſegmentato*, *acnpiſto*, *plumato*.

381. Viri obvolvunt alibi caput *tiarâ*; alibi contegunt pileo (ornato ſpirâ & offendice) aut umbellæ cauſâ *petafô*; aut domi deſidentes *galero*; vel frigoris cauſâ *pileo pelliceo*: ſeminæ colunt

Trades belonging to cloaths.

380. To cover our nakedneſs againſt tempeſts [ſtorms,] we ſtand in need of cloathing : which was plain (of one faſhion) amongſt the ancients, who contented themſelves to cover their head from the ſun with a hood, their body from the cold with trowſes, their feet from the dirty or gravelly way, with ſocks or cha-bots: in our times ~~all~~ things of another mode, neat [ſpruce] even to exceſs; and in a habit of ſeveral faſhions [ſhapes] flaſht, embroidered, plumed.

381. The men in ſome places wrap their heads with a bonnet; otherwhere they cover them with a cap (adorn'd with a hat-band and bowt) or for the ſhadows ſake with a beaver; or ſitting at home with a plain hat; or for cold ſake with a capiflos;

capillos, variè pexos & plexos, in plegmata concinnatos, tæniis corollisque redimitos; aut caput obvolvunt vittis, calanticis, ricis, faciémque præregunt pep̃lis.

382. Indumenta corporis sunt, (ad induendum & exuendum) intimè *indusium*; tum thorax cingulótenus pectori aptatus, & laciniis subornatus; aut longior thorace *tunica*, demissa crurum tenus, succingendæque, si fuerit sinuosa; infra cingulum sunt *subligacula*: hoc est, laxiores braccæ (caligæ, substringendæ fasciis tibialibus,) aut arctiora femoralia, crura simul munientia: ad amiciendum denique (honestatis ergò) superinventa sunt *manicata toga*, vel sine manicis *pallium*; sceminis *palla*, & *amiculum* dicta.

383. Pedibus calceandis parantur molles *socci*, vel *cilicini udones*, & suberæ *crepidæ*; & *calcei* (qui si fuerint angustiores, inducuntur pedibus ope inductorii: partes verò calcei sunt *solea*, *obstragulum*, & *ansa cum corrigiis*;) & ocreæ cum *cruralibus*, aut *femicrurales perones*; *mutatorii* denique *cothurni*.

inrr-cap: the women do dress their hair, being variously kemberd and platted, put into curls, and tyed up with ribbands and chaplets; or wrap [bind] their head about with hair-laces, coifs, knit-kerchiffs, and cover their face with hoods.

382. The raiments of the bodie (to pull off and on) are next to the skin a shirt; then a doublet down to the girdle fitted to the waste, and at the bottom set off with skirts; or a coat longer then a doublet, being let down to the legs, and to be girt up, if it be large and wide; below the girdle are the breeches, that is, loose-slops [gallagaskins] (hose, to be tyed underneath with garters,) or trowsers, somewhat strait, garding the legs together; lastly to cloath with-all (for comeliness sake) were invented over and besides these a long-sleev'd gown, or a cloak without sleeves; on women call'd a loose-bodied gown; and mantle.

383. For the shoeing of the feet are provided soft socks, or felt-socks, and cork-slippers, and shooes (which if they be something strait, they are drawn on the feet by the help of a shoeing-horn: now the parts of a shooe are the sole, upper-leather, and the quarters, with the latches,) and boots with tops [straps:] or half-leg'd startops: to conclude, buskins to shift.

384. Vesti-

384. Vestitus superior est lineus vel taneus; xylinus vel sericus; pelliceus vel coriaceus; nec potest ullus parari sine filis netis: partes autem vestium connectimus aut ligulis, adstringendo nodos; aut fibulis, infibulando illis uncinulos; aut nodulis innectendo hos ocellis oræ alterius.

385. Linum & cannabis rursus feruntur, matura evelluntur, calycibus destinguntur, residuis scapis in lacunis macerantur, rursusque torrentur, stupariis malleis contunduntur, frangibulo conteruntur, ferroque carmine carminantur: ubi quod inter frangendum decedit, sunt cortices; quod inter carminandum secernitur, flocci & stupa.

386. Netrices distribuunt sibi linum factum, superilligandoque pensa colo, trahunt sinistrâ filatim, dextrâ torquent; sive fusim (cui appensum verticillum addit pondusculum ad facilius se versandum,) sive girgillum, unde fila ducuntur in alabrum, & hinc in harpedonem, è qua glomi glomerantur, sitque ad texendum idonea tela.

384. The upper cloathing is either made of linnen or woollen; of cotton or silk; of skins or leather; nor can they be made without thread: but the parts of our cloaths we fasten together either with points by knitting knots; or with buttons, by buttoning them into the button-holes; or with hooks, by clasping these into eyes [oilet-holes] of the other side.

385. Flax and hemp are sown in the countrey, being grown ripe they are plucked up, stripped of top-knobs, with the stalks remaining they are steeped in ditches, and again laid a drying, they are pur'd with beetles, towed with a brake, and hitchel'd with a iron hatchel: where that which falleth down, as it is braking, are hulls; that which is parted as it is hitchelling is hurds and tow.

386. The spinsters do give out by parcel; their wrought-flax, and by binding their tasks on a distaff, they doe draw it out with the left hand thread by thread, with the right they turn about either the spindle (to which the wheel hanging on, adds a little weight that it may the more easily whirl round :) or a spinning-wheel, from whence the threads are drawn on the reel, and from thence on the spooling-wheel, from which bottoms are wound up, and a web fit to be wove is made up.

387. De-

387. Dehinc textor circum-
volvit *stamen* jugo ; infidens-
que officinæ, deculcat alterna-
tim infilia; quo facto, licia se
diducunt, illæque trajectat
radium, cui *pannus* inest : &
sic intexit *stamini* *tramam*,
densatque adacto *pectine* *lin-*
teum (præsertim *carbasum* ;
sive vulgare *cannabinum* vel
stapeum, sive *byssum* & *sindomem*,) decidente hinc inde *tivilitio*.

388. *Insolator* insolat de-
rextum *lintheum* usque dum
candescat : *fartrix* verò inde
suit *interulas*, *capitia*, *colla-*
ria, *focalia*, *muccinia*, *stro-*
phia, aliæque *lineamenta* ;
quæ rursum *lotrix* eluit, quo-
ries sordidantur.

389. *Pannifex* carminat *la-*
nam, contexítque super *ma-*
china *textoria* *pannos* (*Londi-*
nenses, *pingues*, *rylinos*, &c.)
qui mittuntur in *fullonicam*
(præsertim *levidenses*) ibique
injecti à *fullone* in *pilam*, &
perfusi aquâ, slipantur *pilo* :
hinc autem exemit extendun-
tur *pannitendio*, ut exsicce-
scant ; & traduntur *tonfori* in
tonstrinam, qui super *men-*
sam *expansos* *tondet* *forfice*
tonforia, & complicat in vo-
lumina,

387. Afterward the weaver
wrappeth the warp about the beam ;
& sitting in the shop treadeth down the
treddles one after another : where-
upon the shuttle threads open them-
selves, and he hands the shuttle
through, in which there is a quill of
yarn: and thus he weaves the woof
into the warp, and thickens the lin-
nen with the sley drawn to it (espe-
cially flaxen ; or ordinary canvas or
dowlas, or cambrick and lawn,)
the little flakes falling down here
and there.

388. The whitster bleateth cloth
after 'tis wear'd, until it be white :
but the seamster makes shirts
[smocks,] caps, bands, mufflers,
hand-kerchiefs, neck-cloths [gorgets,
whisks,] and other linnens ; which
the laundress washeth clean again, as
often as they are fouled [soil'd.]

389. The clothier cardeth the
wool, and in a weavers loom weaveth
cloths (London cloth, course cloth,
fustian, &c.) which are carried into
the fallers shop (especially the sleight
cloths) and there by the fuller slung
into a tub, and being steeped in wa-
ter, are thickened with a pounder :
and being taken from hence they are
stretched out on a tainter that they
may dry ; and are delivered to the
shear-man into the shop, who sheareth
them being spread upon a table with
shears, and foldeth them into pleats.

390. Similiter texuntur apud *sericarium* panni serici, & *holoserici*, & *subserici*, & *Attalici*, *Damasceni*, *purpurei*, *scutulati*, *undulati*, *florulenti*, *xylini*, *camelini*, &c. cum panno, cui *segmentarius* intertextit aurea subtegmina.

391. Tandem *sartor* pannum (ad *staturam* corporis *demensum*,) *discindit*, *conſuitque* (ope *acus* & *digitalis*) *ſciſſuras* *duplato* & *cerato filo* : *futuras* *complanans* *preſſorio* *ferramento*, ut *nè* *exſtent* *notabiliter* : ſed *extremitatibus* *veſtium* *circumſuit* (*nè* *filamenta* *diffuuant*) *limbum*; aut *præſuit* *lemnifcos*, *paſſimque* *obſuit* (*præſertim* *in ſimbria*,) *inſtitas*.

392. *Connodator* *nexat* *è* *filis* (*contorſione* *trium* *ferreorum* *bacillorum*) *chirothecas*, *tibialia*, *ſubuculas*, &c. *Pileo* *autem* *facit* *è* *lana* *baculis* *coacta* *impilia*, & *exinde* *pileos*, & *alia* *nequeuntia* *permadere*.

393. *Macerantes* *exuvias* *animalium* *lixivio*, & *depilantes* *ſcalpro* *raſorio*, *cerdoneſ* *ſunt* : *inter* *quos* *coriarius*

390. In like manner with the ſilk-weaver are woven ſilks and whole-ſilks [velvets,] and half-ſilks [Padua ſeys,] and ſattins, damasks, ſcarlets, cobweb-lawns, tabbees, taſſaties, bombazines, mow-hairs [chamlets,] &c. with that cloth, into which the embroiderer weaveth golden woofs [i. e. tiſſue.]

391. At laſt the tailor cutteth out the cloth (being meaſured according to the ſize of the bodie,) and ſeweth together (with the help of his needle and thimble) the pieces with a thread twiſted and waxed : ſmoothing the ſeams with a preſſing-iron, that they may not ſtick up ſo as to be taken notice of : but on the borders of the ſuits (leſt they ſhould ravel) he ſeweth a hemme; or gards them with ribbands, and here and there he ſetteth laces (eſpecially in the ſhirts.)

392. The knitter knitteth of yarn (by the winding of three iron knitting-needles) gloves, ſtockings, waſt-coats, &c. but the latter [cap-maker,] of wool beaten together with ſtaves, maketh felts, and thence caps, and other things, that cannot be wet through.

393. They are ſkinners who ſteep the ſkins [hides] of living creatures in lye, and ſhear off the hairs with a ſhaving-kniſe, amongſt

præ-

præparat duriora coria (è whom the tanner prepares the harder hides (of which the shoemaker maketh shooes by the help of an awl and waxed thread headed with a bristle, and of a last :) the leather-dresser softer and curled leather (using the off-pared pieces for the making of glem.) But the furrier of furs maketh furr-gowns, furr-cloaks, and furr-caps.

394. Veteramentarius resarcit lacera calceamenta; interpolator diffuit tritas & deflocatas vestes, inverſasque interpolat & refuit: mendicus confarcinat sibi ipsi centonem, ex recisamentis & panniculis hinc inde collectis.

394. The cobbler underlayeth old shooes; the botcher unrippeth clothes that are worn-bare, and have lost the nap, and turning them he dresseth and seweth them up again: the beggar maketh himself a tatter'd coat, of rags and clouts, gathered [picked, raked] here and there [up and down.]

C A P. XXXIX.

Architectura.

The arts of building.

395. Primitus habitabatur in specubus, & frondeis tabernaculis: postea construebantur tuguria cæspititia, & gurgustia cratitia, luto circumlita: demum fabri cœperunt ædificare ad stabilitatem & magnificentiam; quorum fabricas lustremus.

395. At first they dwelt in caves, and bowers, covered with green leaves: afterwards were rais'd cottages of sods, and hovels of hurdles damb'd over with dirt: at last carpenters [masons] begun to build for firmness and state; whose buildings [fabricks] let us view.

396. Ligna ædificiis apta caduntur hiberno tempore, décroſcentéque lunâ, utne fiant teredinosa: ubi lignator arborem securi sternit, ramos decacuminat, & frunco tigna

396. The wood fit for buildings is hewen down in the winter time and when the moon is in the wane, that it may not be worm-eaten: when the wood-cutter felleth a tree with his axe, cutteth the branches off at the

deformat; dissectis ramalibus,
& compositis in *strues*; sar-
mentis verò collectis in *fascies*,
& servatis in usum foci.

397. *Faber lignarius* affi-
git sibi tignum ferreis ansis
super *cantherios*: tum illud li-
neat *amussi*, deasciatque & ex-
asciat *asciâ*, assulis decidenti-
bus; interdum dissecat runci-
nâ (serrâ majore) scobe reci-
dente: demûmque compaginat
parietes, configens tigna cla-
vis trabalibus, explénsque
intertignia musco.

398. Tum *parietarius* delu-
tat casam luto paleato, vel
accrato: quândoque etiam
sine materiatiōe lutamenta
effingens, è formaceis parie-
tibus.

399. At in cæmentitiâ æ-
dificatione proceditur aliter:
ubi *lapidarius* eruit lapides ru-
tro, aut effringit vectibus è
lapidicinis: quos *lapicida* con-
quadrat ad normiam cælo &
rudite, ut quadrent structuræ
bene: sicubi non est copia sa-
xorum, coquuntur *lateres*, qui
sunt lapides coctiles ex in-
trita.

400. *Faber murarius* (po-
sto fundamento solidè) super-

top, of the stock he maketh rafters;
the arms being split, and laid on
piles; but the brush-wood being ga-
thered into faggots, and kept for
the use of the fire.

397. The carpenter maketh fast
a rafter with cramp-irons upon tref-
sels: then he maketh it with his
plumb-line and cuts it and hews it
with a chipping-axe, the chips fal-
ling off, sometimes he cuts it in two
with a whip-saw (a great saw) the
saw-dust falling down; and at last
maketh the walls, fastning the tran-
soms with great nails, and filling up
the chinks between the rafters with
moss.

398. Then the plaisterer daub-
eth the cottage with loam temper'd
with chop'd straw, or chaff; some-
times too making mortar without
stuff, of mud-walls.

399. But in a stone building it
proceedeth otherwise: where the
stone-digger getteth up stones with
pick-axe, or breaketh them off with
bars [crows] out of the quarries:
which the stone-cutter squareth
with a chizel and mallet to the rule,
that they may handsomely suit with
the building: if in any place there is
no plenty of stones, bricks are burnt,
which are stones baked of clay.

400. The mason (having laid a
sound foundation) buildeth upon it
struis

struit parietes, (primarios, medianos, intergerinos) cernitque conclavia testudine: quæ testor trullissat testorio & gypfato, marmorate dealbat, ruderatque pavimenta (ruderi veteri aut novo:) tum pavit, aut con sternit tessellis.

401. *Architectus* est director ædificii: qui dirigit structionem secundum exemplar præconceptum, aut etiam delineatum; ideam vocant, & modulum, seu modellum.

402. *Domus* profundè fundata, & bene materiata, firmèque trabeata vel murata, & intus columnis affabrè statuminata (nè laquear ruat:) extra verò pilis fulta (nè parietes vacillent) perstat diu columnis; aut si labat, sufficitur denuò: collapsa verò, aut destructa, restauratur. (N. B. *Columna* constat scapo uno, insistitque basi; pilæ sunt strucliles.)

403. *Partes domus* ita concipe: in vestibulo constitutus, ad anticam, habes ante te ædium frontispicium; accedenti ad januam erunt utrinque postes; & in altero quidem cardines, à quibus pendent fores, & super quos ape-

walls, (the first or outmost, the middle-walls, the partition-walls) and archeth the chambers with a roof; which the dirt-dawber rough-casteth over with plaister; and seileth it with parget or alabaſter, and stremeth the floors (with rubbish old or new:) then he paveth, or layeth it with square stones [chequer-wise.]

401. The master-builder is the directour of the building, who directeth the building according to the draught fore-thought-on, or also represented; they term it an idea, or model.

402. A house deeply founded, and well material'd, and firmly beamed or walled, and within propped finely with pillars (that the roof may not fall,) and without upheld with props (that the walls may not totter,) remaineth a great while safe; or if it falleth, it is underpropped again: but being fallen, or demolished, is built a-new. (N. B. a column consisteth of one shank, and resteth upon a base; pillars are piled upon one another.)

403. The parts of a house conceive thus: being set in the porch, at the fore-door, you have before you the frontispiece of the house: as you come to the gate on both sides are the posts; and in one of them the hinges, upon which the doors hang, and upon which they open and shut; but in the

riuntur & clauduntur ; in altero verò sunt *claustra*, nempe aut simplicissimè claudens *pestulus*, indendus foramini postis; aut *obex* affixus fori, obdendus uncinato clavo, postis infixio : aut denique *sera*; sive *Laconica* intrus abdita, sive *pensilis* extra.

404. Si reperies *oppeffulatam* januam, pulsa : si janitor per *transennam*, aut *clathros*, prospectat, roga aperiri; dùmque introis attolle pedem, nè impingas ad inferum limen : caput verò submitte, nè allidas ad superliminare : atque nè cardines strideant, aut fores crepent, move leniter.

405. Ubi ostium pertransiveris, venies aut in *cavedium*, aut mox in atrium; undè ingressio patet in cætera conclavia : aut si domus fuerit distega, vel tristega, ascensio in superiores contignationes per *scalas*, vel *cochlidia*, per *posticum* exitur aliò.

406. Dum sumus in loco subtegulaneo, inambulamus pavimento, sive id sit *fistucatum*, sive *tabulatum*, sive *tessellatum* : laquear autem impendet nobis, sive fuerit *tabulatum*, sive *fornicatum*, aut etiam *vermiculatum*.

other are the shuts ; to wit, either a bar, which plainly shuts, and to be put into the hole of the post; or a bolt [latch] fastned to the door to be clapt into the hasp [catch] that is fastned in the post : or lastly a lock ; either a spring-lock hid within-side, or a pad-lock hanging without.

404. If you find the door bolted, knock; if the porter look out at the casement, or lattices, entreat him that the door may be opened : and as you enter [go in] lift up your foot lest you stumble at the threshold : but stoop down your head lest you dash [hit] it against the lintel : and that the hinges may not make a noise, or the doors creak, move them gently.

405. When you are past the door, you shall either come into the entry, or immediately into the hall : from whence there is a passage into the rest of the inner rooms; or if the house be two stories, or three stories, there is a going up into the upper chambers by ladders, or (winding) stairs ; by the back-door they goe out somewhere else.

406. While we are in a place under the tiles [under covert,] we walk on a floor, whether it be rammed, or boarded [plank,] or paved : but the roof is over our head, whether it be boarded, or arched, or fretted.

407. Te-

407. *Tectum* superponitur columini, (devexum vel in unam partem tantum; vel in duas, vel in quatuor) tegitur aut *cespite*, aut *culmine*, aut *scandulis*, aut *imbricibus*: quæ omnia imponuntur *tigillis*; *tigilla cantheriis*; cantheriorum verò divaricata crura incumbunt *transiris*; *transira* rursus incubant *proceribus* *trabium*: *proceres* si longius progeruntur, faciunt *suggrundia* ampla: præsertim in *peristyllis*, ad ambulandum destinatis; aut in *pensili podio* (seu *pergula*) vel saltem in *projectura* *angulari*, *Meniano*.

408. Tentavit verò humana industria etiam in abdito substruere *cryptoporticus*; & in aërem supra domos, *cœnacula subdialia*; & cum præaltis fastigiis *turres*; stupendæque molis *pyramides*, *obeliscos*, *collossos*; & *perplexa ædificia*, *labyrinthos*; & *ambulatoria ædificia*, *pegmata*, &c.

407. The roof is laid upon the walls, shetving either on one side only; or on two; or on four) it is covered either with turf, or thatch, or shingles, or tiles: all which are put upon laths, the laths upon baufries [spars;] but the crooked shanks of the spars rest upon the transams; the transams again lye on the ends of the beams [summers;] those ends, if they are reacht forth any whit long, make wide [large] eaves: especially in cloysters design'd for walking; or in a gallerie or walk over head; or at least in a corner-jetting, a balconey [tarraß.]

408. But the industry of man hath tryed also to build underground dark vaults; and up into the air on the top of houses, banqueting-rooms open to the air, and turrets with exceeding high tops; and pyramids, obelisks, and colosses [of a vast bulk;] and intricate buildings, labyrinths; and houses to remove up and down, pageants, &c.

C A P. XL.

Artes utensilium: & primo argillaceorum & vitreorum.

409. Veniamus ad opificia, quæ domos implent utensilibus, quibus humana vita carere non potest; & parantur e

The arts of utensils: and first those of clay and glass.

409. Let us come to those works, which fill houses with utensils [household-stuff,] the which humane life cannot be without; and are made of

materia minerali, aut vegetabili, aut animali.

410. *Figulus* ex argilla bene præparata, circumactioneque rotæ figulinæ, fingit ollas, aliâque figlina: quæ excoquit in furno, incrustatque lithargyro; testas tamen solidare nescit.

411. *Vitriarius* (ex arena, cinere, sale, liquatis intensissimo igne) format (in vitriaria officina, perflatuque ferrei tubi) *vitreamina*: è quibus *fenestriarius* facit fenestras (ordinando vitra specularia intra iugamenta, & applumbando stanneo ferrumine, ne excidant) *laternarius* verò laternas; relinquens, pro lucerna inferenda & eximenda, ostiolum.

mineral, or vegetable, or animal materials.

410. The potter of well prepared clay, and by the turning round of the potters wheel, maketh black pots, and other earthen vessels: which he hardeneth in an oven, and glazeth over with litharge; yet knoweth he not how to make pot-sherds solid.

411. The glass-maker (of sand, ashes, salt, melted with a most fierce fire) fashioneth (in a glass-shop, and by the blowing of an iron pipe) glasses: of which the glazier maketh windows (by ranking [ordering] the quarries within the joints [bands,] and ledging them over with solder of pewter, that they may not shatter out) but the lantern-maker lanterns; leaving a little door for to put in and take forth the candle.

C A P. LXI.

Artes metallicorum utensilium,

412. *Metallarius* scrutatur latentes mineras, ope virgulæ cujusdam indicis; tum parat aditionem ad illas ope fossorum, qui ingrediuntur fodinas (intecti bardocucullo & perizomate) cum succensa lucerna: repertæque metallicæ venæ impingunt cuneos, decutiuntque frustra, & extrahunt foras.

413. *Hic discretor* discernit

The arts of metal utensils.

412. The grover seeketh out [searcheth for] hidden mines, by the help of a certain wand used for such discoveries; then he maketh a passage to them by the assistance of miners [diggers,] who go into the mines (being covered with a thick-cloth-hood, and drawers, with a lighted candle: and having found a vein of metal, drive in wedges, and cut down pieces, and draw them out.

413. Here the severer severeth impuri-

impuritates saxeas ; lotor elavat secreta ; alii deferunt in *ustrinas* , colliquefaciuntque sic, ut metallum à scoriis liberatum profluat ; & quia plerumque adhuc argentum intermixtum est auro , separantur illa ab invicem *aquâ forti* , demumque conflatur unumquodque purum putum seorsim, in tabellas vel bacillos.

414. Hic jam fabri, inflando ignem follibus , emolliunt metalla ; mollitâque eximunt forcipibus, exempta cudent super *incude* malleis (dum interim stricturne quaquaversum dissiliunt:) cusa denique laminando, cuspidando , variè figurando , & ubi opus ferruminando, conficiunt utensilia.

415. Faber ferrarius fabricat ferramenta varia; *claustrarius* claustra & claves ; *ferrarius* ferras ; *falcarius* falces ; *cultrarius* cultros ; (quorum aciem famiator famiat ;) *acicularius* acus ; *malleator* thoraces chalybeas ; & loricas, ex annulis ferreis contextas, &c. *gladiarius* gladios ; quos polio polit, instruitque capulis , & superintegit vaginis.

the stony filth ; the washer washeth the things thus separated ; others carry them into the melting-houses and melt them so, that the metal may flow [run] clean from the dross : and because very often the silver is still mingled with the gold , they are severed one from another by aqua fortis , and at last , every thing being pure and neat , is severally cast into planks [ingots] or bairs.

414. Here now the smiths , by blowing the fire with bellows , soften the metals ; and being softened they take them out with a pair of tongs, being took out they beat them upon an anvil with hammers (whilst in the mean while the sparkles fly up and down:) at length being hammer'd by drawing them into plates, by pointing them, by variously fashioning them, and upon occasion, by soldering them, they make utensils.

415. The black-smith maketh several iron tools ; the lock-smith bairs and keys ; the saw-maker saws ; the syth-smith syths [hooks ;] the cutler knives , (whose point the grinder maketh keen ;) the needle-maker needles [pins ;] the armourer steel corsets , and coats of mail made up of iron rings, &c. the sword-cutler swords ; which the scowrer furbisheth [scowreth,] and fitteth them with hilts , and putteth them into sheaths [scabberds.]

416. Faber

416. *Faber ærarius* è ductio cupro cudit, tilligineoque marculo lævigat æramenta: quæ detrita reficiunt vicatim discurrentes *abenerarii*: flator æris fundit ex orichalco statuas, campanasque (pulsatiles ferreo pistillo) tormenta bellica, &c. sicut & *stannarius* stannea vasa; quæ ut niteant depolix fricaturâ.

417. *Laminarius* conficit è laminis lampades, &c. *bracteator* è bracteolis tintinnabula (nolas;) *aurifaber* vasa aurea & aurata (deaurata) argenteaque & argentata (deargentata;) tum armillas, torques, &c. colligens scobem &amenta (quibus intertrimenta possunt compensari) è præcinctorio mensæ alligato.

418. *Monetarius* cudit nummos in officina monetaria: sed qui percutit reprobos, aut admutilat probos; falsarius est: qui autem è sequioribus metallis conatur enixè facitare aurum, alchymistam vocant.

416. The brasier out of pliant copper beateth out, and plaineth with a broad hammer, brass things: which being worn out the tinkers mend again, going up and down from street to street: the brass-founder of copper metal casteth statues, and bells (to be rung with an iron clapper;) and ordnance [cannons] for war, &c. as also the pewterer pewter vessels; which that they may look bright, he scowreth with rubbing them.

417. The plate-man of plates maketh lamps, &c. the latten-man latten little bells; the gold-smith gold vessels and gilded ones, and silver ones, and silvered ones: then bracelets [chains,] &c. picking up the dust and filings, (by which what's rubb'd off may be made good) out of an apron nailed to the table.

418. The coynier stampeth money in the coyning-shop [mint;] but he that coyneth bad money, or clippeth currant [good] money, is a counterfeiter: but he who makes a pudder to work gold out of worse [coursier, baser] metals, they call an alchymist.

C A P. XLII.

Artes utensilium lineorum, & ligneorum, & coriaceorum.

419. *Restio* contorquet restes, funiculósque; idque è

The arts of linen, wooden, and leather utensils.

419. The roper twisteth halters, ropes [cords] and pack-thread; and can-

cannabi, stupa, sparto, vel arborum libris, qui dum virent glubuntur: *viminarius* firpat corbes è viminibus, quandoque decorticatis & exalburnatis; *cribrarius* facit cribra ex assulis flexilibus, rotundatisque; item capsas, rotundas vel ovales, &c.

420. *Doliarius* (victor) conficit doliaria vasa; circumvinciens secamenta vimineis circulis: sive uno fundo, ut sunt *labra* & *lacus*; sive bino, ut *dolia*, habentia foramen desuper, pro infusione liquoris; & deorsum, pro emissionem: illud occluditur operculo aut obturamento; hoc siphone aut epistomio.

421. *Tornator* parat tornatilia opera torno: *arcarius* opera tabulata instrumentis variis: edolans asseres runciâ, & dep'anans planiâ, adunans impagibus & subscudiibus, & circumscalpens extantias scalpro, conglutinansque juncturas glutine, & ut nitent omnia oblinens vernice.

422. *Ustensilia* è corio parant, *frenarius*, *ephippiarius*, *marsuparius*; & qui præmuniunt capitellis ligulas, &c.

that of flax [hemp,] tow [burds,] bast, or the rinds [barks] of trees, which while they be green are pilled off: the basket-maker windeth baskets of twigs, now and then with the rind off and the pith taken out: the sieve-maker maketh sieves of flexil [pliant] and round [cooped] rims, likewise boxes round or oval, &c.

420. The cooper maketh tubs [tunns, hogsheds,] binding about the pieces with twig-hoops: either with a single bottom, as are washing-tubs and vats; or double, as hogsheds [barrels,] having at the top a hole, for to pour in the drink; and another at the bottom, for to let it out: the one is stopped with a bung or stopple, the other with a spigot, or faucet.

421. The turner maketh turned pieces of work with his turn: the joyner plank'd pieces of work with several tools; smoothing boards [deals] with a chipping-axe, and planing them with a plane, clapping them together with pins and mortises [culver-tails,] and taking off the jags with a chezil [rasp,] and glewing together the joynts with glew, and that they may shine overlaying them all with varnish.

422. The harness-maker, sadler, purse-maker [glover] prepare utensils of leather; and those who fence points [laces] with tags, &c.

423. Sa-

423. *Saponarius* coqui è sebo saponem, sebatque candelas : *cerarius* fundit faculas cereas, trahensque instar funiculo- rum, circumvolvitur lychnucho.

424. *Pectinarius* conficit pe- ctines, corneos, eburneos, li- gneos, raris & densis radiis distinctos, pro pectendis cri- nibus : pro comendis autem comis, pectines setaceos : sed *scopularius* concinnat pro ve- stibus purgandis setacea, & verricula, è setis agglutinatiss scapo ligneo.

423. The soap-boyler out of tallow boyleth soap, and talloweth the candles : the wax-chandler maketh wax tapers, and drawing them like to ropes, wrappeth them about a candle-stick.

424. The comb-maker maketh combs of horn, ivory, wood, distin- guished with great and small [thin and thick] teeth, to comb our hair : but to spruce the locks, hair-brushes ; but the brush-maker to make clean our clothes maketh whisks and brushes of bristles glewed to a wooden handle.

C A P. XLIII.

Artes itinerum : primum pedestres.

The arts of journeys : and first those on foot.

425. Non possumus hæ- rere in uno loco semper, opus est transire quoquò : quod si prope sit, animique gratiâ, *deambulatio* est ; si per campos aliquid conquirendo, *peragratio* : si propter peritiam regio- num, *peregrinatio* ; si ad habi- tandum alibi, *migratio* ; ubique autem, si quid nobiscum as- sumimus manu, dicimur *trans- ferre* ; si humeris, *portare* ; si ve- hîculis, *vestrare* ; si comitatu, *ducere*.

425. We cannot alwayes stick [abide, continue] in one place, we must of necessity go somewhere or other, which if it be hard by [near home,] and for recreation, it is a walk : if along the fields a looking for any thing, ranging [stragling] : if for the knowledge of countries, a travel- ling ; if to dwell at another place, a removal ; but to every place, if we take with us any thing in our hand, we are said to bear it up and down ; if on our shoulders, to carry it ; if on waines [carts,] to draw it ; if in our company, to lead [conduct] it.

426. Quò non libet (aut non licet) devenire nobis ipsis-

426. whither we will not (or may not) come our selves, we send
mer,

met, mittimus alium: si ut nunciet aliquid, *nuncium*; si ut deferat nunciatricem epistolam, *tabellarium*; si ut expediat negotium, *curatorem*.

427. Transmeamus autem terrâ vel aquâ (pervolare aërâ nondum didicimus; nam narratio de volatura *Dædali* fabella est:) per terram *vadimus*, aut *gestamur*, aut *vehimur*; per aquam *vadamus*, aut *natamus*, aut *navigamus*.

428. Viatori, pedibus ituro, expedit esse ocreato, aut peronato, nè collutuletur; & lacernato (penulâ induto) ne compluatur: & quia non potest gestare sua omnia in sinu, vel gremio, vel fundâ (aflutis intra vestem loculis:) circumcingit sibi *sacciperium*; aut imponit humeris *sarcinam*; & sumit in manum *baculum*, quô se suffulciat, aut saltem *scipionem* decori causâ.

429. Ingressus viam profisciscatur rectâ, & sine ambagibus, quô tendit: ne deflectat ad diverticula, nisi necesse sit: nec deferat viam regiam semitæ causâ, nisi sit callis tritus, & itineris dux, comêsve fidus ac peritus: alias facile per tra-

[employ] another: if to deliver a message, a messenger; if to carry a letter of affairs [news,] a carrier [post;] if to dispatch business, an assign [agent.]

427. But we pass by land or by water (we have not as yet learnt to fly through the air; for the story of the flight of *Dædalus*, is a meer story:) by land we walk, or are carried, or ride; by water we wade, or swim, or sail [go on ship-board.]

428. It is convenient for a foot traveller to have boots, or high-heeled shoes on, that he be not dashed and moid with dirt, and a riding-coat on, that he be not wet through with rain; and because he cannot carry all his things in his bosom, lap, or pouch (and pockets stitched within his clothes:) he girdeth about him a knap-sack, or layeth on his shoulders a fardle; and taketh in his hand a staff, to bear him up, or at least a cane [walking-staff] for comeliness sake.

429. Having entered the way let him go straight on and without turnings, to the place he is going to: let him not turn aside into by-ways, unless he must of necessity: nor for a foot-path go out of the Kings highway, unless it be a beaten track, and his guide or companion faithful and skilfull, otherwise he will easily come

mites

mites vestigiâque seductoria,
in devia, salebras, aspreta,
veniet.

430. Bivium & trivium
semper est fallax, compita non
æquè seducunt: ergo ut nè fiat
errabundus scisciretur obvios,
quâ eundum sit? & quorsum
flectendum? utrum dextror-
sus, an lævorsus?

431. Devitet offendicula,
ne sint remoræ: nec perambu-
let altiores clivos, (qui sunt
euntibus cacumen versùs ac-
clives, retrorsùs declives:) re-
trocedat potiùs, ubi nequit
meare porro: fossâsq; circum-
eat, si non potest transilire,
nè quidem adminiculo conti-
sic ibit inoffensè.

432. Peregrinâturo ad ex-
teros opus est viatico, propter
impensas; aut certè literis
cambii, ab aliquo collybista:
quandôque & interprete, si
non calleat idioma gentis; &
itinerario bono; maximè au-
tem prudentiâ, ut attendat,
quôcum sit, ubiubi fuerit, à
discessu usque in reditum.

433. Prædones siquidem spo-
liant; piratæ abducunt; latrones
trucidant: sed & in diverforiis

through cross-ways and paths lead-
ing out of the way, into by-ways,
rough and craggy places.

430. A way that hath two or
three turnings is alwayes deceitfull,
cross-ways do not so much mislead
a man: therefore that he may not go
astray let him ask of those he meets,
which way he must go? and to which
hand he must turn? whither to the
right, or the left?

431. Let him shun stumbling-
blocks, that they may not let him;
nor walk over the high cliffs, (which
to those who go toward the top, are
steep; backwards, headlong:) let him
rather go back, where he cannot pass
forward: and go round about the
ditches, if he cannot leap [jump] over;
not by the help of a long stick [pole]:
thus he shall go without harm.

432. He who would travel into
foreign countries hath need of provi-
sion for his charges; or sure letters of
exchange, from some banker: and
sometimes an interpreter, if he is not
acquainted with the language of the
countrey; and a good journal; but
especially wisdom, that he may ob-
serve whom he keeps company with,
wheresoever he shall be from the time
he goeth out, till the time he cometh
again.

433. Forasmuch as thieves spoil
[rob, strip] one; pirates carry one a-
way; high-way-men kill [murder]
(ubi

(ubi pernoctandum est) sæpè one; but in the innes too, (where he est hospes ab hospite intutus, must take up his nights lodging) often- ob improbitatem cauponum times the guest is not safe from the quorundam. host, by reason of the willany of some inne-keepers.

C A P. XLIV.

Equitatio & aurigatio.

Horseman-ship & driving a cart.

434. Ad parcendum pedibus & viribus (in rebus avehendis & advehendis) didicimus uti jumentis ; deinde vehiculis.

434. That we might spare our legs and strength (in carrying and bringing things) we have learnt to make use of labouring-beasts; afterward carriages [things to carry on.]

435. Equitaturus, curat offigi soleas equo ; infternit illi ephippium (quod nè devolvatur, subcingit illud cingula:) ephippioque anteriùs præligat bulgam ; vel adligat retrò vidulum ; vel appendit bisaccium, circumdatque frenum capiti: si antilena, postilena, dorsuale, cerveræque phaleræ adduntur, sunt ornamento.

435. One that is about to ride, taketh care to have his horse shod; he layeth upon him a saddle (which lest it should slip down, he girdeth about with a girth:) and at the saddle-bow he tyeth a male; or fastneth to it behind a cloak-bag; or hangeth a wallet overthwart, and putteth about his head a bridle; if the pettrel, crupper, saddle-cloth, and the rest of the trappings are put on, they are to grace him [set him forth.]

436. Tum infulciens pedem stapedi, insilit in equum: jamque illi insidens (ut abequitet celerius) exstimulat eum calcaribus ad procursum; habenis verò flectit pro lubitu ; aut retinet, & reprimit, pro necessitate: sed gradarius fert equitem molliter, solutarius solutim & subsultim, suc-

436. Then leaning his foot [toe] on the stirrop, he takes horse: and now sitting on him (that he may ride away the faster) he pricketh him with his spurs to a full speed; but with the reins he turneth him at his pleasure; or keepeth him back, and stayeth him as necessity serves: but the gentle-paced-horse carrieth his rider easily, the ambler with wagling and ambling [jetting,] the trotter jolt-

cussator

cussator quatit submolettè ,
cæspitator proterret casu.

437. Ventum est ad *vehicula*: quorum quod tantum raptatur (præsertim per viam nivalem) *traha* dicitur ; quod volutatur super rotas , *curriculum* ; sive fuerit unirotum , *pabo* ; sive birotum , *currus* ; sive quatuor rotarum , *currus* : cuius iterum varia genera.

438. Ampliora enim onera vectantur plauistro ; rudiora sarraco ; homines ipsi *rhedæ* : quæ levior est *essedum* ; dimidiata *cisum* ; coassatione operata *acera* ; pensilis carpentum ; delicato insuper opertorio , *pilentum*.

439. Partes currus primariæ sunt, *remo*, prominens anteriorum ; *jugamenta*, continetia compagem ; *axes*, transcuntes rotas ; *rotæ*, quarum quæque constat ex uno modiollo, duodecim radiis, sex abscissibus (curvaturis) totidemque ferreis canthis.

440. *Auriga* parans equos aurigationi, ventilat avenam *vanno*, evannatamque obsipat (cum defecto stramento), alligatis capistro ad præsepe, & interseptis per longurios, inditque (saturatis & per-

erb [*trotteth*,] the stumblers *casteth* one afraid of a fall.

437. We are come to carriages; of which that which is only drawn (especially along the snow) is called a dray [*sled*;] that which is rowled on wheels, a chariot; whether it hath but one wheel, a wheel-barrow ; or two wheels , a car [*cart*;] or four wheels, a coach; of which again there are several sorts.

438. For greater burthens are carried in a wain; baser things in a tumblel ; men themselves in a Flemish waggon : which if it be any thing light, it is a caroch ; being cut off in the midst is a chariot; with a close cover a horse-litter; hanging loose, a sedan; having a dainty canopy besides, a pavillion.

439. The chiefeſt parts of a chariot are, the beam [*tong*] standing out forwards : the couplings containing the joints [*bands*;] the axels going through the wheels; the wheels, of which every one is made up of one nave, twelve ſpokes, fix felloes [*ſtrakes*,] and as many iron binders [*clouts*.]

440. The coach-man fitting the horses for a journey, fanneth oats with a fan, and being winnowed he casteth it (with chopped hay) to them being tyed with a halter to the manger, and parted from one another with long poles; (& having filled their bel-

purga-

purgatis strigili) oream, atque si quis mordax est, constringit ora fiscinâ.

441. Dehinc adjugat jugo parippum cum sellario, annexitque retinacula (dependencia de helcio) extremitati temonis: tûm si non placet uti bigâ, sed trigâ, vel quadrigâ, præjungit antecessores, quos agat ante se loro: (magnates tamen uruntur sejugibus, reges octojugibus; eoque rhedariis etiam pluribus.

442. Ut currus leviùs currat, vector ungit axes axungia; respectâtque inter aurigandum nè exorbitet: si in cœno hærescit nè diu hæreat, & retardetur, subjungit plures (equos:) contra in præcipiti descensu, nè velociter ruat, currumve evertat, sufflaminat rotas sufflamine; vel abjungit equos.

443. Ubi transitus nondatur vehiculis, per loca perrupta & invia, adhibentur clirellaria jumenta; imprimis tardi caballi, inepti ad equitandum: quibus impositæ cliellæ sustinent onera, gausapius cooperta.

444. Sed in plano potiùs

lies, and curried them over with a curry-comb, putteth the bit into their mouthes, and if any of them be given to bite, he binds his chaps with a barnacle [muzzle.]

441. Then he yoketh the fore-horse with the filler; and fastneth the staves (dangling down from the collar) to the end of the tong[beam:] then if he be not willing to make use of two horses, but three, or four, he joyneth fore-horses, which he driveth before him with a whip: (yet great men use six horses, Kings eight; and therefore the more postillions too.)

442. That the coach may run the lighter, the driver greazeth the axel-trees with wheel-grease; and looks behind him as he is driving, that it may not wheel out of the track: if it stick in the mire that it may not stick long, and be stayed, he putteth more (horses) behind: on the contrary in a steep fall, lest it should run down swiftly, or overthrow the coach, he stoppeth the wheels with a trigger; or unties [lets loose] the horses.

443. where there is no passage for carts [coaches,] through craggy and wayless places, pack-horses are employed; especially slow jades [sumpture-horses,] unfit to ride with: on which the pack-saddles being laid, bear the burdens, covered with searcloths.

444. But in plain ground we sa-
H urimur;

uimur, si celerare opus, veredis (celeribus) quam meritoriiis vehiculis, (ibi tamen intertriginem cave;) atque ut sis expeditior, impedimentis te non aggravas, quæ festinos tardant.

ther use, if we be in haste, post-horses (hackneys,) then hired wagons, (but there have a care of galling [losing leather :]) and that thou mayest be the more quick, do not burden thy self with luggage, which hinders them that are in haste.

C A P. XLV.

Natio & navigatio.

Swimming and sailing.

445. Flumina, lacus, maria, obstant identidem viantibus, superanda omnino iis, qui ulterius velint, siue ponte aut ponticulo (lapideo vel subli- cio,) siue aliter: quod jam re- censebo.

445. Rivers, lakes, seas do oftsoon hinder the travellers, which must needs be passed over by those who would go further; either by a bridge or little bridge (of stone or timber, or some other way; which I I shall now relate [reckon up.]

446. Innatare aquis discunt super scirpeam ratem, arbore- umve corticem; tum sine corti- ce jactu manuum pedumque; sunt & nonnulli, qui aquam calcare sciunt, (tranando sine madefactione vestium, quas supra caput tenent, pectoribus tenus merfi :) urinatores etiam sub aqua (instar piscium) na- tant: ergo si flumen potest va- dari, propter brevitatem, transilitur; sin, transnatur.

446. They learn to swim upon the water with a rush-boat, or bark of a tree; then without the bark by the strikeing out of the hands and feet; and there are some who know how to tread water (by swimming over without wetting their clothes, which they hold over their head, being sunk up to the breast:) but di- vers swim under water too (like fishes:) therefore if a river may be forded, because of it's shallowness, it is waded over, otherwise it is swum over.

447. Post adorsi sunt stru- ere rates: ex tignis obiter compactis, rursumque soluti- libus: tum lintres, ex unico excavato ligno: tandem naves

447. Afterwards they began to build boats: of rafters slightly set together, and again easily taken a- sunder: then skulkers [cock-boats] of one piece of wood made hollow: at

ad firmitudinem compactiles, quæ habent *proram* & *puppim*; *carinamque* & *stegam*, cum *geminio latere*; quorum *intercapedo* dicitur *alveus navis*.

length ships built for strength, which have a prow [fore-deck,] and a poop [hinddeck:] and a keel and cabbins, with two sides, the distance of which is called the hold [hulk] of the ship.

448. *Minores naviculæ sunt, cymba, lembus, oria*; subservientes piscationi: tum *ponto*, quo flumina trajiciuntur, (sed *portitori* ad *trajectum portorium* solvitur:) *major navis*, vel *onera vehit*, & dicitur *oneraria* (*geraria*, *gestoria*;) vel *homines, vectoria*: quam si *cubiculata est*, vocant *phaselum*; *celeritati destinatam celocem* & *Liburnicam*.

448. *The lesser vessels are, a boat, a fisher-boat, a skiff, serving for fishing: then a ferry-boat, wherein they are wafted over the rivers, (but the ferry-man hath a fare paid him for passage:) a greater ship either carrieth burdens, and is called a ship of burthen [lading;] or men, a passage-boat: which if it be full of rooms [cabbins,] they call a pinnace [galley,] appointed for haste [speed,] an hoy and frigot.*

449. *Olim nesciebant aliter propellere navigia, quam remulco (funis tractorio) aut remis, aut contis ad scalmos positis: construebanturque actuariæ naves, (biremes, triremes, quadriremes, &c.) quas impellebant remiges (confidentes transtris per interscalmia & remigantes:) dirigebant verò tenentes clavum; proreta ad proram, & gubernator ad puppim.*

449. *Heretofore they knew no otherwise to drive the barks [vessels] forward than with haling-ropes or poles, or oars placed at the oar-rings: & ships were built to be driven along (of two oars, three oars, four oars, &c.) which the rowers rowed (sitting together on their banks along the tires, and rowing: but they that hold the rudder [stern] did guide [cond:] the guider at the fore-deck, and the pilot [steer's-man] at the poop [hinddeck.]*

450. *Tandem adverterunt posse jugari ventos: quibus captivandis excogitarunt vela; & velis dispendendis malos, antennas, versorias; & ventis*

450. *At length they perceived that the winds might be mastered: for the taking of them prisoners they invented sails; and to spread the sails, masts, sail-yards, cables;*

observandis tritonem; novissimè demum *acum marinam*, monstratricem plagarum mundi, cujus indicatione possunt navigare per tenebras etiam (quod prius nisi ad stellæ polaris prospectum, accensósque ignes non poterant) enavigareque ipsum oceanum.

451. Velificant ergo adspirante vento secundo, plenius velis, vento adverso, obliquant vela & cursum alternatim: vento nullo, velificatio non procedit, quàm tranquillitas est.

452. Procellâ obortâ repente, nè abripiantur à fluctibus, aut impellantur ad scopulos; allisâque navis demergatur; *nautæ* contrahunt & demittunt vela, (imò & recidunt instante discrimine) & sic tutius jactantur: si nihilo minus videtur imminere *navis fragium*, faciunt jacturam rerum, tametsi prætiosarum, non sine miserabili lamento navis fragantium.

453. Alias quoque nè incidant in brevia, explorant profunditatem sali bolide, cautèque præternavigant cautes & syrtes.

454. Quia verò navis onerata iunat firmiùs, navigaturi

and a *fane* [weather-cock] to observe the winds; and now of late the mariners needle [the compass,] that sheweth the quarters [regions] of the world, by whose direction they can also sail in the dark (which before they could not but by sight of the pole-star, or fires lighted) and to sail over the very ocean [main sea.]

451. Therefore when a fair wind bloweth, they put to sea with full sails; in a contrary wind, they cross [slope] their sails, and course by turns: if there be no wind stirring, there's no sailing; when it is a calm sea.

452. When a storm of a sudden is risen, that they may not be hurried away with waves, or beaten against the rocks, and the ship being split be sunk; the mariners furl and strike the sails, (yes and cut them off, danger being at hand) and so they are more securely tossed: if nevertheless a shipwreck is likely to happen, they cast their goods though never so precious, over-board, not without a wofull lamentation of the shipwreckt persons.

453. At other times also, that they may not fall into flats, they sound the depth of the sea with a plummet, and warily sail over rocks [shelves] and quick-sands.

454. But because a ship laden swimmeth more firmly, when they are

vacua

vacuâ saburrant eam, non tamen nimio plus, nè pessum eat: & quia quaquam tandem fathiscens (navis) transmittit per fissuras, & assamentorum commissuras, nauteam confluentem in sentinam, exantlat inde hanc *aptliâ*.

455. Peractâ navigatione appellunt; naulum exsolvitur *naclero*, & quisque festinat domum: quem sui sospites videntes incolumem, jubent *avere*.

456. Navis ipsa deducitur in portum, detracto aplustri; aut linquitur in statione (si locus impetuosus est (stans super anchoras, & sic fluctuans, rimosa verò subducitur in navale, ut à *nanpegis* reconcinetur.

to sail in an empty one, they load her with ballast, yet not overmuch, lest she founder; and forasmuch as chapping any where she letteth down through the chinks, and the joynts of the planks, filth that runs down into the sink, they pump it out from thence with a pump.

455. The voyage being ended they arrive at the place; the fare [freight] is paid to the master, and every one hyleth home: whom when their friends in health see safe, they bid them welcome home.

456. The ship it self is drawn up into the haven, when the tackling is took off; or is left in the bay [road] (if the place be without an haven) riding at anchor, and so floating; but being full of leaks it is brought into the dock, that it may be mended by the ship-wrights.

CAP. XLVI.

Machine tractoriæ.

Drawing engines.

457. Cùm habeamus necesse transportare, non tantum nosmet ipsos, sed & alia, molésque multarum rerum excedant vires corporis nostri, quæsitæ sunt juvamina à *machinis*: attingemus quædam.

458. Quantum duo *bajuli* possunt ferre palangis, potest unus trudendo ante se onus impositum *paboni*, suspensa

457. Since we have occasion to transport, not onely our selves, but also other things, and the bulk [greatness] of many things exceeds the strength of our body, helps have been sought from engines: we will touch upon some.

458. As much as two porters can carry with sledges [coul staves] one may, by venting before him his burden laid on a wheel-barrow, a

ærumna à collo: sed longè
majora provolvi possunt pha-
langis.

459. Sustollendæ rei gravi
serviunt, primùm *vestis*, quem
oneri suppingendo, proten-
sæque parti incumbendo, onus
tollimus: deinde *succula*, quam
itidem suppingimus, manu-
briumque ejus rotamus manu:
rum *trochlea*, per cujus orbic-
ulos traducti funes ductarii
plures, multiplicant vim tra-
hendi: hinc *ergata*, quam cir-
cumeundo vestiarii versant:
granium denique, cum adjun-
cto rotabili tympano, cui in-
ambulando res magnæ molis
protollimus.

460. Validæ compressioni
serviunt *pressoria* generis om-
nis, quorum omnium ratio
hæc est; *præla* duo pressare vio-
lentissimè rem adiguntur, à
torculari versabili, vique re-
torto circa *cochleam* spiratim
striatam; contra qui findere
vult aliquid, diffilire illud
cogit, adigens *tudite cuneum*.

461. *Fistucæ* adhibentur ad
pangendum *sublicas*; sive an-
satæ fuerint, attollendæ & de-
mittendæ humanis manibus;
sive extollendæ *trochlæis*, &
demittendæ, ut fortius feriant.

bearing-rope hanging at his neck: but
far greater burdens may be rolled
along with leavers.

459. For the heaving of a weighty
thing serve, first, a bar [crow is fit,
which pecking under the burthen, and
leaning on the part that stands out,
we lift [raise] up the burden; then a
rowler, which in like manner we put
under, and roll the handle of it with
our hand; then a pulley, through the
grooves [wheels] whereof several cords
being drawn multiply the drawing
force: afterward a capstand [wind-
beam,] which the heavers by going
about turn round: lastly, a crane,
with a round house joyned to it, by
walking in which, we draw [lift] up
things of vast bulk.

460. Presses of all sorts serve for
strong pressing, the way [manner] of
all which is this; two pressing-
boards are forc'd to crush a thing
most violently together, by a nur
made to turn, and pul'd back by
force about a spindle rev'd in
wreaths: on the other side, he who
would cleave any thing, forceth it to
fly asunder, driving in a wedge with
his mallet [beetle.]

461. To make fast piles, ram-
mers are used; either with handles,
to be lifted up and let down with
mens hands; or to be drawn up with
pulleys, and let down again, that
they may strike the stronger.

462. Artificioſi aquæ ductus cogunt aquam per canales aſcendere in quamvis altitudinem: *Archimædea* verò *cocblea* facit aquam deſcendendo aſcendere: ſed *aquagia* exſiccant aquis inundatos campos.

463. *Horologia* ſunt reperia dimetiendis horis: primum *ſolaria* (*ſciotherica*) ubi gnomonis umbra horarias lineas tranſmeando; tum *aquaria* (*clepsydræ*) ubi aqua de vaſe in vas tranſtillando; mox *arenaria* (*clepsammia*) ubi arena itidem furtim tranſfluendo, oſtendunt moram præter labentis temporis.

464. Admirere verò inventum *antomati*! in quo rotulæ motant ſeipſas ſuis libramētis, repræſentântque circulatione illâ replicationem horarum (fortè & dierum, menſium, totiùſque planetarii curſus.)

465. Perſcrutantur etiam, quomodo *machina* verè automata poſſit confabrefieri; procedens ultroneo ſuo tractu indefinenter, nec habens opus intendi: nuncupant *mobile perpetuum*, quod an ſit poſſibile inventu, ambigitur.

462. The artificial carryings of water do force the water to aſcend through pipes to any height [altitude:] but the vice [ſcrew] of Archimedes cauſeth the water by deſcending to aſcend: but ſlucce dry the fields being overflown with water.

463. Clocks were invented for the meaſuring of houres: firſt of the ſun (ſun-dials) where the ſhadow of the pin by going over the hour-lines; then of water (water-hour-glaſſes) where the water by dropping out of one veſſel into another; little after of ſand (ſand-hour-glaſſes) where the ſand in like manner ſliding down by ſtealth, do ſhew the delay of the paſſing-away-time [how time paſſes.]

464. But you would wonder at the invention of a watch! in which the little wheels move about themſelves with their poiſes, and repreſent by that circulation the return of the hours (and perchance of the dayes too, and moneths, and the whole courſe of the planets.)

465. They alſo ſearch very much how an engine truly turning of it ſelf may be made; unceſſantly moving forwards by it's own voluntary drawing, not ſtanding in need of winding up: they term it the perpetual mover, which whether it can poſſibly be invented, is doubted.

Oblettatorie artes.

Arts for delight.

466. Non prius discedemus ab artificibus, quam percensuerimus quædam reperta, servientia merè laetitiei, oblectamentiisque sensuum.

467. Mundare se identidem limpida, est munditiei; fucare fucō leucocinii: balnea cō sunt, ut deluamus squalores, desidentes in labro: aut ingressi vaporarium, conscendamus sudatorium, & eliciamus sudorem, defricemusque strigmenta cilicio; & extergamus linteis: transeundōque è caldario (vel tepidario) in frigidarium; aut vicissim, indulgeamus delectationibus.

468. Balneator quandōque scarificat, affixis cucurbitulis, auxiliatu flammæ: sæpe & adornat barbas comasque, (quod quidem & barbitonfor facit:) dān displicatum capillitium, partim attondet forpice, partim detondet novacula, partim evellit volsellis; relinquens capronam pendulam à fronte, aut comam in circuitu; cincinnos verò crispans calamistro: calvis autem adaptans ascitium capillamentum, calindrum, seu galericulum.

466. we shall not depart from artists, before we have run over some inventions, merely appertaining to daintiness, and to the delights of the senses.

467. To wash ones self ever and anon with fair water, is but cleanliness; to paint with cheek-varnish is a bawdy kind of trick: baths are for that use, that we may wash off filth, sitting down in a washing-tub: or that having entred the stove we may get up into the sweating-tub, and force out the sweat, and rub the filth off with a hair-cloth, and wipe us with linnen-cloths; and passing out of the warm-bath into the cold-bath, or on the contrary, we may take our delights.

468. The bath-keeper now and then scrubbeth, fastning cupping-glasses, by the help of the flame: and oftentimes trimmeth the beard and hair, (which indeed the barber also doth:) whilest having unfolded the hair, partly he clippeth it with his scissers, partly shaveth it with his razor, partly plucketh it off with twisers; leaving a fore-top hanging on the fore-head, or a bush round about; but curling [crisping, frizzling] the locks with a curling-iron: but fitting the bald with periwigs, a perruke, or false hair. 469. Res

469. Res tactiles ut nos afficiant incubatu leniter, inventi sunt lectuli & storeæ; plumæque pulvinaria & cervicalia, quibus supercubamus (munditer, si lodices superinsternuntur candidæ:) tum stragula ac tegetes, quibus supertegimus nos: denique conopea, quibus circumsepimus lectulos, nè quid obturbet.

470. Pro commodiore seditatione sunt, scamna & sellæ, cum fulcris ac scabellis; & bisellia, fulcro ambifariam versabili: tum culcitæ, fartæ tomento: olimque ad mensam discubitorii lecti, & subalares pulvilli; denique pro gestatione lecticæ, & aliæ gestatoriæ sellæ, quibus aut morbidi, aut voluptuarii, circumstantur.

471. Blandimenta gustatui dant cupediæ, quas cupedinarum generum placentæ, liba, piperatæque liba, (quæ dulciarius facit,) lagana, moreta, obelia, tegantæ, scriblitæ, crustulæ, panis saccharites, in clibano coctus, &c.

472. Unguentarius paritat voluptuosos odoramenta, smegmata, suffitus; quibus illi delibuti fragrant.

469. That things we touch may affect us gently in our lying down, beds and mattresses were found out; and feather- [down-] pillows and bolsters, on which we ly [rest] (cleanly, if white [clean] sheets are spread upon them:) then the bed-clothes and coverlets with which we cover our selves: finally canopies, with which we surround our beds, that nothing may disturb us.

470. For our more convenient sitting there are benches and chairs with feet and backs, and foot-stools; and double-stools with a stay to be turned to either side; then tikes stuffed with flock; and in times past beds to ly down at the table, and little pillows under their arm-holes [sweet-bags;] and finally for carriage litters, and other seats [chairs, sedans] to carry one, in which either sick or voluptuous [nice] persons are carried up and down.

471. Sweet-maats afford delights to the taste [pallat,] which confectioners prepares; as are cakes of several sorte, wafers, and spiced cakes, (which the comfit-maker maketh,) pan-cakes, cheese-cakes, flawns, custards, tarts [apple-pies,] cracknels, sugar'd bread, baked in an oven, &c.

472. The perfumer prepareth for delicate persons sweet-balls, musk-balls, perfumes; with which they being perfumed, smell sweet.

473. *Delinimentum* autem à modulatione vocis est; seu vi-
væ, seu musicorum organo-
rum: quæ vel *pulsantur*, vel *ple-
ctuntur*, vel *inflantur*.

474. *Pulsantur*: *tympanum*,
tampana, *cymbalum*, *tintinnabu-
lum*, *crepitacula* quæcunque:
itemque *crembalum*, quod in-
sertum dentibus, adhalatu
gutturis, allisûque digiti, rin-
tinnat.

475. *Plectuntur* organa,
quæ fidibus intenduntur ac
remittuntur, (intensæque a-
cutum sonant, laxæ graviter:)
idque vel digitis, (seu manûs
utriusque,) ut *sablium* (*sam-
bucæ*;) seu alterius, alterâ mo-
derante chordas, (ut *cithara*
& *testudo*;) vel *pectro*, eoque
aut *setaceo*, ut *fides*; aut *rota-
bili*, ut *tyra*; aut *prosiliente*
pinnulâ, ut *instrumentum*.

476. *Inflantur* verò quæ-
dam ore, ut *fistula*, à *fistulato-
re*; *tibia*, à *tibicine*; *tuba*, à
tubicine; *lituus*, à *liticine*; *buc-
cina*, à *buccinatore*; *gingras*, à
gingrator; *tibia utricularis*,
ab *utriculario*; quædam folli-
bus, ut *organon pneusticum*, ab
organario pulsatum.

473. The pleasure [tickling] of
the eares is from the tuning of the
voice; either of a live voice, or of
musical instruments: which are either
beaten, or toucht, or blown.

474. These are beaten: a drum,
a bell, a cymbal, a little bell, and
rattles [tabers] of what kind soever:
and likewise a Jew's-harp [trump,]
which being put between the teeth, by
the breathing of the throat, and the
striking of the finger, tinkleth.

475. Those instruments are touch-
ed, which are wound up and let
down with strings, (and being wound
up they sound sharp, being slackned
flat:) and that either with ones fin-
gers, either of both hands, as the
psaltery [dulcimum;] or of one, the
one moderating the strings [keeping
stops and frets,] (as a cittern and
lute:) or with a fiddle-stick, and
that of horse-hairs, as a fiddle; or
with one whirling round, as a harp;
or with a quill jetting out, an in-
strument.

476. But some are blown with
the mouth, as a whistle, by the
whistler; a pipe, by the piper; a
trumpet, by the trumpeter; a cornet
[shalm,] by the cornet-player; a
fife, by the fifer; a gingras, by him
that playeth on the gingras; a bag-
pipe, by the bag-piper: some with
bellows, as an organ, played on by
the organist.

477. *Obleſtamenta oculorum ſunt viſibilium rerum representationes, aut transformationes; & præſentationes quidem jam in plano, picturâ; jam in materia ſolida, ſive molliori, ſicturâ; ſive duriori, ſculpturâ; calaturâ, fuſurâ: aut denique per ſpecula, ſpecularia; aut per ignes miſſiles.*

478. *Pictor delineat cujusvis rei effigiem graphio, & perpingit penicillo ac pigmentis:quem imitantur quodammodo illuminatores crepundiorum; & encauſtæ, expingentes vitra igni; & Phrygiones (acupictores ſeu plumarii) acupingentes filis verſicoloribus, quandoque & unio-nibus, gemmis, plumis, intextentſque veſtibus varias figuras: maximè autem calceographi, incidentes ſubtiliſſimas imagunculas æri, imprimen-tſque chartis.*

479. *Fictor infundit modulo certæ formaturæ ceram, vel gypſum, vel metallum, eoque modo pereleganter deſignit fuſiles imagunculas: ſed ſculptor exſculpit ſtatuas liberâ manu: calator verò inſculpit vaſis jam paratis, figillis item, ſpecies quas vult.*

477. *The delights of the eyes are the representations or transformations of viſible things; and the representations one while on the ſurface, by picture; another while in a ſolid matter; either ſomewhat ſoft, by imagery [wax-work;] or ſomewhat hard, by graving, carving, melting; or finally through glaſſes, by perſpective, or through fire-works [ſquibs and ſerpents.]*

478. *The painter draweth out groſſy the picture of any thing with his brush, and with his pencil and colours painteth it over: whom they that trim childrens play-games doe after a manner imitate; and the enamellers painting glaſſes with the fire; and the embroiderers [needle-workers] embroidering with many-colour'd threads, and now and then with pearls, jewels, feathers, and interweaving garments with ſundry figures: but eſpecially engravers [etchers] cutting moſt rare little pictures in braſs, and printing them on paper.*

479. *The founder poureth into a mold of a certain figure, wax, or plaſter, or metal, and in that manner he curiouſly ſaſhioneth caſt images; but the ſtone-cutter cutteth out ſtatues with a free hand: but the engraver, upon veſſels already prepared, as alſo upon ſeals, engraveth what ſhapes he pleaſeth.*

480. *Faber Speculorum* parat è vitris specula, quibus homines intueantur seipsos: & *conspicilia*, quibus prospectent acrius res: & *telescopia*, quibus prospectent dissita ut propinqua; & *microscopia*, quibus obtueantur pusilla ut grandia; & *prismata*, transfigurantia colores rerum milleformiter; *luculentia* denique *specula*.

481. *Speculum* illud erit optimum, quod reddit species objectas eadem qualitate & quantitate: id quod fit, cum benè perpoliturum est, & prorsus planum, nèque concavum nèque convexum: hoc etenim ostendit rem minorem quàm est, illud inversam.

480. *The glass-man of glass* maketh looking-glasses, in which men may behold themselves: and spectacles, through which they may view things more accurately; and prospective-glasses, through which they may see things a far off as if they were nigh [at hand, hard by;] and magnifying-glasses, in which they may behold small things as great ones; and prismes, transforming the colours of things a thousand ways; finally burning-glasses.

481. That shall prove the best looking-glass, which casts back the object species with the like qualitie and quantity: which comes to pass when it is well polished, and altogether plain, neither concave nor convex: for sheweth the thing lesser then it is, that upside down.

C A P. XLVIII.

Artes culturæ humane.

The arts of humane culture, or, cultivating men.

482. *Lustravimus artes, manuvias, rurales, mechanicas*, quibus elaborantur res exanimæ ad utilitatem, honestamentaque vitæ nostræ: quia verò ipsa etiam natura humana sine politura brutescit, (hinc incultæ gentes barbaræ sunt) sumusque necessariò expoliendi mente ad sapientiam; animo ad honestatem; lingua ad

482. *We have surveyed arts, handy-crafts, rural, mechanick*, by which things without life are wrought for the advantage and decencies of our life; but because the very nature of man without polishing waxeth brutish (hence nations without culture, are barbarous,) and we must of necessity be polished in the mind to wisdom; in the will to honesty; in the tongue to eloquence; *facun-*

facundiam; veni & specta, quomodo id fiat, ut ipse quoque perpoliaris.

come and behold how they may be done, that you your self also may be thoroughly polished.

483. O quam desiderabile est, sic exculcum esse! nimirum habere mentem illuminatam, rebus depictam; & posse rursum in aliorum mentibus easdem depingere sermone! & habere actiones passionésque suas in potestate sua! angelica hæc est perfectio, considerata in plenitudine suâ

483. O how desirable is it, so to be adorned [improved!] to wit to have an illuminated mind [enlightened to understanding,] coloured over with things; and to be able again by speech to paint forth the same things in other folks minds! and to have his actions and passions in his own power! this is an angel-like perfection, being considered in it's fulness.

484. Si vis participare felicitatem hanc, tu adolefcentule, adesto! sed ut tria illa tibi exoptes solida, non fucata; cupiens evadere non sciolus, sed sciens; non locutuleius, sed eloquens; non simulatus cultor virtutum, sed serius.

484. If you have a mind to share in this happiness, you youngster, come hither! but that you may wish your self those three things solid, not artificial: desiring to prove, not a smatterer, but knowing; not a talker, but eloquent; not a pretender to virtues, but serious [downright-virtuous.]

485. Hujus culturæ instrumenta, quæ sunt libri, scholæ, conversatio erudita; peregrinationesque susceptæ illius causâ, audi narrationem de istis singularim: commonstrabo quid ibi & quomodo fiat, ut habeas gustum scibilium omnium.

485. Because the instruments of this culture [education, good breeding] are books, schools, learned conversation; and travels undertaken upon that account, hear the relation of them one by one: I will shew you what is done there, and how, that you may have a smack of all things, that are to be known.

C A P. X L I X.

Literæ & libri: cum ministratoriis artibus, typographia, & aliis.

Letters and books: with arts attendant, as printing, and others [the rest.]

486. Modus SCRIPTURÆ

486. The way of WRITING
fuit

fuit apud *Aegyptios* per notas *hieroglyphicas*, fictas scilicet rerum figuras : apud *Chinenses* per reales characteres, quos etiam diversæ nationes intelligunt, & quisque sua lingua legit : apud nos sunt in usu *LITERÆ*, notulæ minimorum sonorum oris, è quibus complicatis fiunt *verba*, *sententiae*, *libri*.

487. Antiqui literas incidebant saxis, malleo : postea insculpebant ligneis codicibus (præsertim faginis) sectis in tabulas, ac dolatis, cælite : dehinc exarabant in *tiliaceis libris*; aut foliis palmæ, oleæ, malvæ, & linteis, ceratis vel gypsis, stylo ferro (vel osseo) postmodum *Tiliaco* calamo inscribebant *pergamene*, ex ovinis tergoribus paratæ.

488. Subsequenter inventa est papyrus, è papyro, planta bicubitali, habente (corticis loco) tunicas latissimas & prætenues; quas discriminas acu, & imbutas aquâ glutinosâ, complanatâsque prelo, ac desiccatis sole, digerebant in scapum, habentem plagulas viginti : nunc est *charta* in usu, quam *chartopæus* conficit è linteis vetustis concepris,

with the Egyptians was by hieroglyphick notes, namely the feigned pictures of things: with those of China by real marks [characters] which also several nations understand, but every one readeth in his own language: with us *LETTERS* are in use, the notes of the least sounds of the mouth, of which put together, are made words, sentences, books.

487. The ancients did cut letters in stones, with a mallet: afterwards they engraved them on wooden books (especially of beech) being cut into tables, and planed, with a graver: afterward they printed in barks of tyle-trees; or leaves of palm, olive, mallows, and linnen, waxed or plastered, with a pin of iron (or bone:) afterwards they with a reed of the river Nilus wrote on parchment, made of sheep-skins.

488. Then paper was found out, of papyrus, a plant of two cubits high, having (in the stead of bark) very broad coats, and very thin ones; which being divided with a needle, and seasoned with a gummy water, and smoothed with a press, and dried in the sun, they digested into a quire, having twenty sheets: now-a-dayes paper is in use, which the paper-maker maketh of linnen rags [clouts,] pull'd to pieces and con-

contussisque in pulmentum, & diductis in folia, intermistâ collâ, ut nè charta perfluat: tum eam colligit in volumina minora, majora, maxima.

489. *Atramentum* scriptorium confit è gallis quernis, & vitriolo: quibus adinditur aliquantum aluminis, & gummi, ad prohibendum mucorem, & penetrationem: penna verò eligitur anserina vel pavonina, caule amplo, firmo, pertranslucido; quam qui temperat scriptioni, eradit scabritiem tergo scalpelli; acie autem detruncat caudam, & rescindit utrinque caput, ut bifurcatum fiat: tum diffindendo facit crenam, pro defluxu atramenti; circumciditque rursum incisuram istam, & præcidit æqualiter; demum intingit ac scribit, post recondit in calamarium.

490. *Hebræi* scribunt à dextra sinistram versus; *Græci*, & cæteri *Europæi*, à sinistra versus dextram; *Indi* quidam perpendiculariter à summo ad imum, æquè legibiliter.

491. *Prisci* habuerunt *tachygraphiam*, per siglas, quibus sufficiebant excipere sermonem manu, non ad calamum dictantis, sed liberè loquentis:

pounded into a jelly, and drawn out into leaves, size being intermixt, lest the paper should blot: then he gathereth it into smaller, bigger, greatest volumes.

489. Ink to write with is made of the galls of oaks, and vitriol [copperas:] to which some allom, and gum is added to keep it from moulding and sticking through; but a pen of a goose or a peacock is chose with a large, hard, very clear stalk; which he that sitteth for writing, scrapeth off the roughness with the back-side of his pen-knife, but with the edge he cutteth off the tail [end,] and sliceth the head on both sides, that it may be double-forked, then by splitting it he maketh a slit [neb] for the letting down of the ink; and again gasbeth round that cleft, and cutteth it even; at length he dippeth it (in the ink) and writeth, afterwards he putteth into his pen-case.

490. The Hebricians write from the right hand towards the left; the Grecians, and other inhabitants of Europe from the left towards the right: but the Indians perpendicularly from the top to the bottom, alike legibly.

491. The ancients had short-writing, by characters, by which they were able with the hand to take a discourse, not of one dictating to the pen, but speaking freely: yet we

nos habemus etiam celerior-
rem, *Typographiam*, quâ unus,
unâ die, plus describit, quàm
aliàs possent mille scribæ: sed
& *stenographiam* nuperrimè
exsuscitarunt *Angli*.

492. *Typographus* distribuit
per loculamenta æneos typos,
conflatos permagno numero:
quos *Typotheta* expromens in-
didem, sigillatim componit in
verba, *versus*, *paginas*; coar-
ctatque marginibus ferreis, &
indit prelo: tum illinit atra-
mento impressorio (quod pa-
rat ex fuligine & oleamento:) *apprim*itque suppositis char-
tis, & sic describit integras
schedas momento; omnes cor-
rectissimè, si modò primum
exemplar fuerit correctum, &
corrector non fuerit idiota, aut
iners: expleto autem numero
exemplarium, dissecat rur-
sum typos per *cellulas* suas, ut
possint coagmentari denuò,
in alium textum.

493. *Librarii* olim agglu-
tinabant chartas chartis, con-
volvebantque in *volumina*:
nunc eas *bibliopegus* (compa-
ctor) compingit in *codices*:
dum singulas phyluras rario-
ris chartæ tingit aquâ alumi-
natâ, siccitas verò complanat,

have a swifter (way,) viz. Printing,
by which one man, in one day, setteth
down more, then otherwise a thou-
sand clerks could do: but the English
very lately have brought up short-
writing too.

492. *The Printer doth distri-*
bute along the composing-boxes brazen
types, being cast in a very great
number: which the Composer draw-
in [taking] out from thence, composeth
one by one into words, verses
[lines,] pages; and coucheth them
close with iron chases, lest they should
slip out; and layeth them under the
press; then beateth them with printers
ink (which he maketh of lam-black
& oil:)& pulleth them on the papers
that ly under, and thus in a moment
copieth out whole sheets; all most
correctly, if so be the first copie was
corrected, and the correctour was
not an ideot, or sluggard: but having
wrought the number of copies, he
again distributeth the letters into
their own boxes, that they may readi-
ly be set together again, into another
text.

493. *The stationers heretofore*
did glew papers to papers, and rolled
them up into volumes; now the
book-binder [binder] bindeth them
up into books: whilst he sprinkleth
every sheet of thinner paper with
allom-water, and having dried them
he smootheb, beateth, seweth, glew-
malleat,

malleat, consuit, conglutinat dorso, demarginat, circummunit tegmentis (papyraceis, membraneis, coriaceis) lateraque fibulat clausuris (aheneis uncis;) aut connectit lingulis scorteis; vel sericeis; grandioribus etiam libris affigit umbilicatas bullas.

494. *Bibliopola* vendit libros in bibliopolio: *bibliothecarius* eosdem congestat in *bibliothecam*, & adscribit catalogo, & disponit per repozitoria ac forulos, & exponit ad usum super pluteos.

495. A forma exteriori liber est, vel chartæ integræ (in folio vocant;) vel plicatæ in quadrum, aut in folia sex; octo, duodecim, sedecim: item columnatus aut linguatus; atque si grandior est, quàm ut comprehendatur compacturâ unâ, dividitur in *tomos*.

496. Interiores partes librî sunt; *titulus*, *dedicatio*, *præfatio* (quâ argumentum ediscitur) interdum & *elogia*: tum tractatus ipse, dispersitus in sectiones; dehinc clausula; cum *indice* contentorum, aut etiam *erratorum*.

497. Libri scriptor dicitur *author*; primum scriptum *autographum*; transcripta inde

eth on the back, cutteth off the margin, guardeth about with covers (of paper, parchment [vellum,] leather) and joineth the sides close with clasps [catches] (brazen hooks;) or tyeth them together with leather or silken strings; he fastneth also to bigger books bunched bosses.

494. The book-seller selleth his books in his shop: the library-keeper carrieth the same (books) into the library, and putteth them down in the catalogue, and ordereth them on shelves or in boxes, and layeth them forth for use on desks.

495. From the outward form a book is either of one intire paper [leaf] (they call it (a book in folio;) or folded into four-leaves, or into six, eight, twelve, sixteen: [a book in quarto, &c.] also of columns or tongues; and if it be bigger then can be contained [comprehended] in one volume, it is divided into tomes.

496. The inward parts of a book are; the title, dedication, preface (wherein the subject is discoursed of) and now and then elegies: then the treatise it self, distributed into sections: afterward the conclusion, with the index of the contents, or also of the errata's.

497. The writer of the book is styled the author; the first copie, the manuscript; the writings over of

apographa; editor, si simul commendator fuit, censor: ejus est judicare de germanitate scripti, annon sit suppositivum, ex toto, vel ex parte: & admonere lectores de genuina lectione, si exemplaria dissonent, veròque dictorum sensu; sive glossis interjectis, sive annotationibus separatis.

498. *Liber bene elaboratus* fit vendibilis, recuditurque sæpius: sed videndum est, ut editio semper sit auctior, vel saltem correctior: noxiosi verò utinam nulli evulgentur.

that, transcripts; the publisher; if he was also the correctour, the licenser: whose work it is to judge of the truth of the writing, whether it be not supposititious throughout, or in some part; and to admonish the readers of the genuine reading, if the copies differ, and the right meaning of the words; either by glosses [interlined,] or by notes apart.

498. A book well performed becomes saleable, and is often reprinted: but you must look that the edition be alwayes larger, or at least more amended [perfect:] but naughty ones I wish none at all were set forth.

C. A. P. L.

S C H O L A.

499. *Schola* est officina transfundendi eruditionem è libris in homines: ubi necesse habent exerceri juniores (qui optant ordiri vitam sapienter, & transigere prosperè,) non solum in literatura, sed in omnibus quæ perficiunt naturam humanam: nempe ut prædiscant rectè sapere, rectè agere, rectè loqui.

500. Qui docet, est doctor; qui discit, *discipulus*: quorum ille si fuerit doctus, & didacticus, (cui adsit communicandi aliis doctrinam gnaritas, & promptitudo) hic autem doci-

S C H O O L S.

499. A school is a shop of transfusing learning out of books into men: where the younger sort have need to be exercised (who desire to begin their life wisely, and to carry it on prosperously) not only in literature, but in all things which perfect [accomplish] humane nature: namely that they may fore-learn to understand aright, to act aright, to speak aright.

500. He that teacheth, is the master; he that learneth, the scholar: whereof the one if he be learned, and apt to teach (who hath a [skill, knack] readines of communicating learning to others,) and the other

lis

lis & disciplinosus (quotidie aliquid novi rescire, ac ad-
discere, avidus,) uterque ha-
bebit delicias; scholâque fiet
ludus, dum operæ peragentur
ludibundis utrinque.

501. Erit hoc, si agatur
tempore uno, nonnisi unum,
nè distrahatur sensus; & eatur
semper gradatim, quomodo
res pendent ab invicem: do-
censque præmonstret semper
exemplar exquisitum cuiusque
rei noscendæ, aut faciendæ:
illudque explicet præceptis
perspicuis; & jubeat imitari
mox: discens verò intueatur
exemplar avidè; & percipiat
informationem de illo atten-
tè; & mox exprimere illud
studeat imitatione accuratâ;
adstante magistro, & nè ab-
erret providente; aut si aber-
rare videt, corrigente; assis-
tentibus item condiscipulis;
quotquot fuerint; ut in quo
emendatur unus, in eo dedi-
scant hallucinari omnes; men-
dâsque desuefiant.

502. Hæc identitas manu-
ductionis habebit eam com-
moditatem, ut pædagogus u-
nus, stans in pulpito, satisfac-
iat quantavis erudiendæ ca-
tervæ: hi autem excitent se-
ipsos cættatim; acuantque æ-

teachable and towardsly (greedy [de-
siring] to know, and learn some new
thing every day,) both of them will
take pleasure; and the school will be-
come a pastime, whilst on both sides
the business will be performed sport-
ingly.

501. This will come to pass, if
but one thing at one time be perform-
ed, lest the sense should be distracted;
and they go alwayes by degrees [step
by step] as the things depend one on
another: and the master shew alwayes
an exact pattern of every thing that
is to be known or done; and explain
that by clear precepts; and imme-
diately command them to imitate it:
and the learner look upon the pattern
earnestly: and attentively receive an
information of it; and then study to
express it with an exact imitation;
the master standing by; and looking
that he mistake not; or if he see him
mistake, correcting him: his school-
fellows also as many as ever they be,
standing by, that wherein one is a-
mended, therein all may learn to
mend, and leave off their faults.

502. The constant course of in-
struction will have that advantage,
that one school-master standing in a
desk may be able to instruct never so
great a company: and that they may
stir up one another in a way of strife;
and prick themselves forward by a

mulatione mutuâ, dum omnia sunt palam omnibus : atque sic ingeniosi proficiant potenter, tardiores verò superent tandem quoque difficultates, ipsâ assiduitate exercitiorum : quod ostendent examina.

503. *Disciplina* tamen adiungitur institutioni, ut nè obrepat incuria, vel desidia, aut dissoluta licentia, per indulgentiam : ergo qui negligenter agit, increpatur ; qui desidiosus est, castigatur ferulâ : in quo malitiosa obstinatio deprehenditur, dignus est secludi à consortio morigerorum, nè inficiat alios pravitatem.

504. Ludimagister tamen cavebit esse plagosus ; potius permittet diligentibus, (libenter, non invitè) honestas recreationes, spatiationes, collusiones : adeoque ipsemet colludet, providendo utilia exercitia.

505. Infima scholarum, trivialis, pro elementariis est, quorum sensus exercendi sunt circa res sensuales ; dehinc gymnasium (classicam scholam vocant) pro iis, qui discunt linguas, liberalesque artes, & sunt exercitandi circa rationes rerum noscendas : tan-

mutual emulation, while all things are performed openly before all : and thus the ingenious may profit amain, and the dullards too at length overcome difficulties, by the very continuance of exercises : which the examinations will shew [manifest.]

503. Yet discipline is joyned to instruction, that carelesness, or idleness, or debauchedness, through indulgence may not steal upon them : therefore he who is careless, is chid ; he who is slothfull, is chastised with a ferula ; he in whom malicious stubbornness is found, deserves to be turned out from the company of the obedient ones, lest he infect others by his naughtiness.

504. However a school-master should take care of being curst [a whipster,] rather he shall permit to the diligent (freely, not unwillingly) honest recreations, walks, sports : yea himself shall play with them, to provide them fit exercises.

505. The lowest of schools, a petty one, is for those who learn the rudiments, whose senses are to be exercised about sensual things : then a free-school, (they call it a classick school) for such, as learn languages, and liberal sciences, and are to be exercised about knowing the reasons [causes] of things : at length dem

dem sunt *academiæ*, pro iis, qui quærent absolutam eruditionem, purum scilicet intellectum rerum; ubi hoc dant operam professores facultatum quatuor, ut humanæ vitæ magistri, *philosophi*, *medici*, *jureconsulti*, *theologi*, inde prodeant, communi bono.

there are universities for such, as seek absolute learning, to wit, the pure understanding of things: where the professors of the four faculties labour for this, that the masters of humane life, philosophers, physicians, lawyers, divines may come abroad thence, to the common good [publick benefit.]

C A P. L I.

P H I L O S O P H I A.

P H I L O S O P H Y.

506. *Philosophus* investigat causas rerum, quid, unde, quare, & quomodo sit, unumquodque: qui occupatus circa ideas rerum omnium universales, & abstractas, vocatur *metaphysicus*; circa corpora naturalia, formasque rebus concretas, *physicus*; circa rerum proportionones, *mathematicus*; circa hominum mores, *ethicus*; circa sermonis rationem, *philologus*.

506. The philosopher searcheth out the causes of things, what, whence, why, and how every thing is; who being employed about the universal and abstract ideas of all things is styled a metaphysician; about natural bodies, and forms concrete with things, a natural philosopher; about the proportions of things, a mathematician; about the manners of men, a moralist; about the reason of speech, a philologer.

507. *Metaphysicus* contemplatur res à priori; non ut jam sunt, sed ut possibiles erant, antequam erant: perscrutans, quid hoc sit esse, aut non esse; fieri, aut non fieri; existere, aut vaneſcere; durare, aut perire, &c. item quid sit rerum identitas, diversitas, contrarietas, &c. quibûsque modis ens enti possit jungi, aut ab illo

507. A metaphysician contemplateth things in their causes; not as they now are, but as they were possible, before they (actually) were: searching, what this is to be, or not to be; to be made, or not to be made; to exist, or to pass away; to last, or to perish, &c. also what the identity, the diversity, the contrariety of things, &c. is; and by what means one being may be joyned

sejungi; vel plura *entia* sibi conglobari, usque ad ipsam *universitatem rerum*, extra quam nihil est.

508. *Physicus* considerat res à posteriori, prout eas videt in mundo: ut intelligat, quâ vi fiant, operentur, alterentur, &c. Cujus intelligentiæ summus apex est *magia*; peritia scilicet effectorum producendorum, occulta applicatione activorum ad passiva: sed hujus monstrum sunt *præstigia*, quæ peraguntur incantamentis & excantationibus; meræ satanicæ illusiones, relinquendæ strigibus.

509. Ad philosophandum liquide requisita sunt necessaria, *sensuum acrimonia*, *rationis sagacitas*, & vera plenâque *historia rerum*: quippe oportet prænosce prius aliquid esse, quàm inquiras in ejus essentiam, vel causas.

to another, or be separated from it; or more beings be compacted together, even to the very universitie of things, out of [beyond] which there is nothing.

508. A naturalist considereth things in their effects, as he sees them in the world; that he may understand by what power they are made, they work, they are altered, &c. the highest pitch of which knowledge is magick; to wit a skill of producing effects, by a secret application of actives to passives: but the monster hereof are sorceries, which are performed by incantments and spells; mere delusions of the devil, to be left for hags [witches.]

509. To play the philosopher clearly, the necessary perquisites are, quickness of the senses, sharpness of the reason, and a true and full history of things; because it behoveth to know that something is first in being, before you enquire [dive] into it's essence, or causes.

C A P. L I I.

*Mathesis: primumque
arithmetica.*

The mathematicks; and first of all arithmetick.

510. *Mathesis* adaperit viam philosophiæ: pervestigans rationem numerorum, in *Arithmetica*; & mensurarum, in *Geometria*; & ponderum in *Statica*.

510. The mathematicks open the way to philosophy: diligently searching out the reason of numbers, in Arithmetick; and of measures, in Geometry; and of weights, in Staticks [ballances.]

511. *Ari-*

511. *Arithmeticus tractans industriè numerosas res, quoties obtingunt, peragit omnia sua per numerationem, additionem, subtractionem, multiplicationem, divisionem, regulamque proportionum.*

512. *Ruricolæ computant simplicius per paria, decusses, duodenas, quindenæ, sexagenæ: arithmetici subtilius, per unitates, decades, centenarios, millenarios, myriades; recentiores etiam per tonnas & milliones: unitas etiam decies repetita facit decem; decies decem, centum; decies centum, mille; decies mille, myriada; decem myriades nunc vocant tonnam; decem tonnas (id est, millies mille) millionem.*

513. *Numerandi notæ fuerunt Græcis non aliæ, quam literæ alphabeti sui, α. β. γ. δ. &c. Romani adhibuerunt septem solum literas, I. V. X. L. C. D. M: Arabes excogitarunt ingeniosè ciphras decem, quibus numerosissima quæque possunt exprimi, (vel arena maris:) tandem inventi sunt calculi, disponendi super abacum. (Exempli gratia, si quis dicatur habere mille, sexcentos, octoginta & quatuor aureos, id annotabit sic,*

511. *An arithmetician handling industriously things of number, as often as they come in's way, performeth all his works by numeration, addition, subtraction, multiplication, division, and the rule of proportions [the Rule of Three.]*

512. *The countrey folks reckon [count, tell] more simply by pairs, half-scores, dozens [twelves,] fiftens, three-scores; arithmeticians more subtilly, by units, tens, hundreds, thousands, ten thousands; the moderns [people of late] also by tunns and millions: for an unit ten times repeated maketh ten; ten times ten, an hundred; ten times an hundred, a thousand; ten times a thousand, a myriad; ten myriads now they call a tunn; ten tunns (that is, a thousand thousand) a million.*

513. *The numbring notes [marks] with the Grecians were no other, then the letters of their alphabet, α. β. γ. δ. &c. the Romans made use of seven letters only, I. V. X. L. C. D. M: the Arabians ingeniously found out ten ciphers: by which the most numerous things that are, (even the sand of the sea) may be exprest: at length counters were found out, to be laid on a counting-table. (As for example, if any one be said to have one thousand, six hundred, eighty four crowns, thus shall he set it down,*

Numeris Romanis,
M. DC. LXXX. IV.

Cifris Arabicis,
1 6 8 4.

Calculis,

In Roman numbers,
M. DC. LXXX. IV.

In Arabick ciphers,
1 6 8 4.

In Counters,



§14. Numerus dicitur *par*, qui potest dividi in duas æquales partes, (ut, 2, 4, 6, 8, &c.) *impar*, qui non potest (ut, 3, 5, 7, 9, &c.) *fractus*, qui habet partem ruptam; ut *sesqui alter*, ($1\frac{1}{2}$): cætera quære alibi.

§14. A number is called *even*, which can be divided into two equal parts, (as 2, 4, 6, 8, &c.) *odd*, which cannot, (as 3, 5, 7, 9, &c.) a *fraction*, which hath a part broken; as *one and a half*, ($1\frac{1}{2}$): look the rest in another place [elsewhere.]

C A P. LIII.

GEOMETRIA.

§15. *Geometria* explorat magnitudines rerum præcisè, ut nè quid nos possit decipere, apparendo majus aut minus, vel propius aut remotius, altiùs aut humiliùs, quàm est; quod potissimum conducit ad mensurandas rerum *longiquitates & capacitates*.

§16. Peragit mensionem suas per puncta, lineas, figuras, & certa instrumenta, quibus cernitur omnia.

§17. *Linea* incipit à pun-

GEOMETRY.

§15. *Geometry* searcheth out the magnitudes of things precisely, that no thing may deceive us, by appearing greater [bigger] or less, or nearer or further off, higher or lower, then it is: which chiefly conduceth to the meting [measuring] distances and capacities of things.

§16. It performeth it's measuring by points, lines, figures, and certain instruments, wherewith it meteth all things.

§17. A line beginneth from a
80,

So, & definit in punctum: estq; point, and endeth in a point: and is in seipsa vel recta; vel curva; in it self either streight; or crooked; vel spiralis; alteri verò lineæ, or spiral; but to another line, either vel parallela; vel obliqua; vel parallel; or oblique; or perpendicular. V. typ. æn. 13. See the brazen type, 13.

518. Ex concursu linearum fit *angulus*, qui est vel *rectus*, quem linea incidens perpendicularis efficit, ut est (in subjecto schemate) *angulus ABC*, vel *acutus*, minor recto, ut *BCD*, vel *obtusus*, major recto, ut *ACD*.

Vide Tab. 13.

519. *Figurarum simplicissima* est *circularis*; tum *triangularis*; inde *quadrangularis*, &c.

520. *Circulus* fit ex unica linea ambiente, quam vocant *circumferentiam*; ut hic *EDCH*: ejus medium punctum est *centrum*, *A*: linea à centro ad *circumferentiam* ducta, est *radius* *AH*, vel *AC*: *radius* vero protensus ad partem oppositam, dissecansque *circulum* æqualiter, *diameter* vocatur, ut *BAC*. Vide Tab. 13.

521. *Triangulum* fit è tribus lineis: estque vel *acutangulum*, cujus omnes tres anguli acuti; vel *rectangulum*, cujus unus rectus; vel *obtusangulum*, cujus unus obtusus. Vide Tab. 13.

522. *Quadrangulum* est *quadrilaterum*; hoc autem vel

518. Of the concurrence of lines is made an angle, which is either streight [right-angle,] which a perpendicular falling upon another causeth, as is (in the scheme underneath) the angle *ABC*, or acute [sharp,] lesser then the right-angle *BCD*, or obtuse [blunt,] greater then the right-angle, as *ACD*.

519. The most simple of figures is the circular one; then the triangular one; next the quadrangular one, &c.

520. A circle is made of one line going round, which they call the circumference; as here *EDCH*: it's middle point is the centre *A*: the line drawn from the centre to the circumference, is the radius [spoke] *AH* or *AC*: but the radius extended to the opposite part, and cutting the circle into two equal parts, is term'd the diameter, as *BAC*.

521. A triangle is made of three lines: and is either acute-angled, all whose three angles are acute; or right-angled, one whereof is right; or obtuse-angled, one whereof is obtuse.

522. A quadrangle is four-sided; and this either four-square; quadrangle

quadratum; vel *oblongum*; vel *rhombus*. Vide Tab. 13.

523. Accipe etiam figuras corporum regulares; orbis est gyratus; globus rotundus; cylindrus teres; pepo ovalis; pomum orbiculatum; pyrum, & quidvis conicum, turbinatum; cubus quadratus; (licet sexlaterus, & octangulus;) tribulus triquetrus.

Vide Tab. 14.

524. Mensuræ distantiarum ita sunt: grana papaveræa quatuor faciunt unum hordeaceum; hordeacea totidem digitum, digitus cum triente ($1\frac{1}{3}$) pollicem; digiri quatuor, palmam; palmi tres, spithamam; quatuor, pedem; quinque, palmipedem; sex, ulnam (seu cubitum, sesquipedem;) duo pedes cum semisse faciunt gradum, seu gressum, hoc est, passum minorem; quinque, passum majorem (geometricum, qui est idem cum orgyia;) decem pedes dant perticam (decempedam;) centum viginti quinque passis geometrici dant stadium: octo stadia (hoc est, mille passus) milliare Italicum; hæc autem quatuor, milliare Germanicum; milliare sesquitalicum, Gallicam leucam.

525. Mensuræ capacitatis

or oblong; or a rhombus [like a quarry of glass.]

523. Take also the regular figures of bodies: an orb [hoop] is round-hoop'd; a globe is round all over; a roller round and long; a melon oval [like an egg;] an apple roundish; a pear, and any conick thing [spire,] like a top; a cube [die] four-square; (although six-sided,) and eight-angled; a trefoil, three-corner'd.

524. The measures of distances are thus; four poppy-seeds make one barley-corn; as many barley-corns, a fingers-breadth; a finger with a third part ($1\frac{1}{3}$) a thumb [inch;] four fingers, a hands-breadth; three hand-breadths, a span; four, a foot; five, a foot and a hands-breadth; six an ell (or cubit, a foot and a half;) two foot and a half make a step, that is a lesser pace; five, a greater pace (a geometrical one, which is the same with a fathom;) ten feet make a pole; a hundred twenty five geometrical paces make a furlong; eight furlongs (that is, a thousand paces) an Italian mile; but four of these a German mile; an Italian mile and a half, a French league.

525. The measures of capacity
apud

apud Romanos fuerunt : primum pro liquidis, quatuor cochlearia (seu ligulæ) faciunt cyathum ; horum tres, quartarium ; quartarii duo, heminam ; heminæ duæ, sextarium ; hi sex, congium ; quatuor congi, urnam, quantum vir ferre potest ; duæ urnæ amphoram (seu quadrantal) quantum duo commodè bajulant ; viginti amphoræ, culeum, quantum plauastro vehi solet.

526. Mensura minima aridorum fuit cyathus ; cyathi sex dabant heminam ; heminæ duæ, sextarium ; duo sextarii, modiolum ; hi quatuor, modium ; modii duodecim, medimnum : (sed arida herbacea metiuntur pugillis, manipulisque.

527. Explorant verò rectam aut curvam lineam, amussu extensâ, vel applicatâ inflexibili regulâ ; rectitudinem anguli, normâ ; situm plani horizontalis, libellâ ; recti autem plani, perpendicularo ; circuli exactiorem circino ; vasis capacitatem perticâ ; cui inscripti sunt numeri stereometrici.

Vide Tab. 4. & 14.

528. Distantias metiuntur communiter ope quadrantis :

amongst the Romans were : first for liquid things, four spoonfulls make a cyathus [cup-full ;] three of these, a quartarius [quarter of a pint ;] two quartani, a jill, half a pint ;] two jills, a pint ; six of these, a pottle ; four pottles, an urn [gallon,] as much as a man can bear ; two urns a rundlet, as much as two conveniently can carry ; twenty rundlets, a butt [pipe,] as much as is wont to be carried in a cart [wain.]

526. The least measure of dry things was cyathus [a cup ;] six cyathi [cups] will yield hemina [a pint,] two heminæ [pints,] a sextarius [quart ;] two sextarii [quarts,] a modiolus [pottle ;] four of these, a modius [bushel, peck ;] twelve of these, a medimnus [charnock, quarter :] but dry herbie things they measure by small handfulls, and great handfulls [full gripes.]

527. But they search out a straight (or crooked line, with a plumb-line extended, or by applying an inflexible rule ; the straightness of an angle, with a square ; the situation of an horizontal plain with a level ; but of a streight plain, with a plummet ; the exactness of a circle with a pair of compasses ; the capacity of a vessel with a gage, whereon the stereometrical numbers are written.

528. They measure distances commonly by the help of a quadrant :
dum

dum per pinnulas versabilis radii prospectando rem visam, ex duabus stationibus, observandoque quantitatem trianguli minoris, quem in suo instrumento effici vident; colligunt quantitatem linearum trianguli majoris, quem in terra faciunt lineæ, inter duas stationes & rem visam comprehensæ. *Vide Tab. 4.*

529. Talem mentionem distantiarum vocant *geodæsiā*: atque si fit in plano (ut agri) *longimetriā*; si sursum (ut montis) *altimetriā*; si deorsum (ut putei) *profundimetriā*; dum verò doliorum capacitatem metiuntur, *stereometriā*.

530. *Geometra* examinans, cur visio subinde fallat: (ex. gr. cur aliquid sub aqua, aut per vaporem, majus videatur quàm est, nec suo loco:) item cur tanto minor appareat res, quanto fuerit remotior ab oculo; nec non causas pelluciditatis & opacitatis, perspicuitatisq; & obscuritatis, &c. *opticus* vocatur.

whilst by looking through the holes of the radius that may be turned about, on the thing seen, from two stations, and observing the quantity of the lesser triangle, which they see made in their instrument; they gather the quantity of the lines of the greater triangle, which the lines make on the earth, that are comprehended between the two stations and the thing seen.

529. Such a measuring of distances they call *geodesia* [surveying of land:] and if it be made on a plain, (as of a field) *longimetria* [measuring of length;] if upwards (as of a mountain) *altimetria* [measuring of height;] if downwards (as of a well) *profundimetria* [measuring of depth;] but whilst they measure the capacity of hogsheds, *stereometria* [gaging of vessels.]

530. A *geometrician* examining, why the sight ever and anon mistakes; (for example sake why any thing under the water, or through a mist, seemeth greater then it is, nor in it's own place:) also why a thing appeareth so much less, by how much farther it is from the edge; and likewise the causes of transparencie and opacitie, and of perspicuitie and obscuritie, &c. is called an *optick*.

C A P. L I V.

S T A T I C A.

S T A T I C K.

531. *Staticus* probat solidi-

531. A weigher tryeth the soliditatem

ratem rerum, & dehinc pretiositatem, ex perpenſa illarum gravitate, vi *librarum & powderum*.

532. *Libræ partes ſunt, primùm librile ſeu ſcapus* (& jugum;) deinde in centro librilis *axiculus*, ſuper quem fit libratio; tertio *anſa*, à qua ſcapus pendet; & *anſæ apertura, agina*; qua tranſit examen, *lingula ſcilicet infixæ ſcapo*.

533. Eſt autem ratio duplex libræ, & penſuræ; primam vide in balance, habente centrum in medio ſcapi: unde neceſſariò ſequitur ut æquilibria ponderent æqualiter, & graviùs præponderet, deorſumque vergat; leviùs verò ſe attollat, tantò magis, quantò alterum prægravat: ſive in balance maxima, trutina; ſive minima (quâ nummi penſiculantur) *lancula*. Vide Tab. II.

534. Alteram formam libræ ſpectabis in ſtatera: quæ habet centrum librationis extra medium ſcapi; cujus rei conſequens eſt, ut radius protenſior faciat (inter librandum) majores aſcenſiones & deſcenſiones, quam radius minor: eoque ſit idem commen-

lidity of things, and then their worth, by weighing the heavineſſ of them, by the force of ſcales and weights.

532. The parts of a ſcale [*balance*] are, firſt the beam, or ſhank; then in the centre of the beam, the little axel, on which the poizing is made; thirdly, the handle on which the beam hangeth; and the cleft of the handle, the bole of the ballance; through which the tongue [*needle*] paſſeth, namely being faſtned to the beam.

533. But there is a double reaſon of the ballance, and of weighing; the firſt ſee in the ballance having the centre in the middeſt of the beam: whence it neceſſarily followeth that even weights ſhould weigh equally, and that the more heavy ſhould overweigh, and ſink downwards; and that the more light ſhould lift up it ſelf, ſo much the more, by how much the other out-weigheth it: either in the great ballance, a pair of ſcales, or in the little one (in which money is weighed,) gold-weights.

534. The other form of a ballance you ſhall ſee in the Troy-weight: which hath the centre of poize out of the middle of the ſcale-beam; the conſequence of which is, that the longer beam (in weighing) maketh greater aſcents and deſcents then the liſſer beam; and therefore the commensuration of the weights is the ſame one

sus ponderum ad invicem, qui *with another, with that of the arches.*
 arcum. *Vide Tab. 12.*

535. Usus horum est talis: *libripens* imponit rem librandam alteri lanci, alteram gravat ponderibus; donec videat æquilibrium (seu æquipondium) quod ostendet examen aginam æquans: in statera autem suspendit rem delibrandam ab uno, in B; pondusculumque promovet in radio opposito; (dimenso incisuris) huc illuc, usque ad æquilibratam: illud enim admotum propius centrum; ponderat minus; amotum à centro longius, plus.

536. Levissimum pondusculum (dans libellæ momentum,) facit *gramm*; quatuor grana *gliquam*; hæc quinq; *scrupulum*; tria *scrupula*, *drachmam*; quatuor *drachmæ*, *semunciam*; octo, *unciam*; uncia duodecim, *libram*: (mercatoris tamen libra est sedecim unciarum) centum libræ dant *centipondium* (vulgò *centenarium*).

535. Such is the use of these: the weigher putteth the thing to be weighed in one scale, the other he maketh heavy with weights, until he seeth even [standing, gold-] weight, which the tongue [needle] standing even to the cleft of the handle will shew: but in the Troy-weight he hangeth the thing to be weighed at a hook, in B; and removeth up and down the small weight in the opposite beam (measured out with notches,) until it be even weight, for that being removed neerer to the centre, weigheth less; being removed further from the centre, more.

536. The lightest small weight (that gives motion to the ballance,) they make a grain; four grains a carraet; five of these a scruple; three scruples; a drachm; four drachmes, half an ounce; eight, an ounce; twelve ounces, a pound: (but a market-pound is sixteen ounces) an hundred pounds make an hundred pound weight commonly a hundred.)

C A P. LV.

ASTRONOMIA.

537. Quid ergò numerant, mensurant, ponderant, philosophi? *Omnia*. Sunt tamen illis solennissimæ dinumerationes,

ASTRONOMIE.

537. What therefore doe philosophers number, measure, weigh? All things. Yet they have most solemn numbring, measurings: and dimen-

dimensiones, collibrationesque 1. cœli, in *astronomia*: 2. terræ, in *geographia*: 3. temporum, in *chronologia*: 4. cogitationum, in *logica*, *mnemonica*, *prognostica*: 5. moralium actionum, in *ethica*: 6. sermonis in *philologicis artibus*: quæ omnia percurramus obiter.

§38. *Astronomus* contemplaturus astra, determinat sibi firmamentum in certas regiones, per quas observet transitiones siderum: nempe imaginarios circulos; quorum primarii sunt, *æquator*, *tropici*, *zodiacus*, &c. quos tu ita concipe. *Vide Tab. II.*

§39. *Stellas* ire circularim, indicat quotidiana reditio ad loca eadem: ergo cœlum est volubilis sphaera: ergo habet axem, circa quem revolutatur: ergo & duas extremitates axis sui, seu duos immobiles polos, *septentrionalem* & *meridionalem*.

§40. Inter polos finge, in medio sphaeræ maximum circulum, erit *æquator*: & huic parallelos duos, *tropicos*; quos sol describit altissimus æstate; & humilissimus, hyeme: sed annuam viam Solis, (transcursum ab hoc tropico ad illum tropicum, intersectantemque

poisings, 1. of *heaven*, in *astronomie*: 2. of *the earth*, in *geographie*: 3. of *times* in *chronologic*: 4. of *thoughts* in *logick*, *mnemonick*, *prognostick*: 5. of *moral actions*, in *ethick*: 6. of *speech* in *philological arts*: all which let us run over by the by.

§38. An astronomer about to view the stars, quartereth [parteth] to himself the firmament into certain regions, through which he may observe the passages [motions] of the stars; namely, imaginary circles; of which the chief are, the æquator, the tropicks, the zodiack, &c. which do thou conceive thus.

§39. That the stars move circularly, their daily return to the same places doth shew: therefore the heaven is a rolling sphere: therefore it hath an axel, about which it is rolled [turned round;] and therefore two extremities [farthest parts, ends] of it's axel, or two immovable poles, the northern and southern.

§40. Between the poles conceive in the midst of the sphere a great circle, it will be the equatour; and to this two parallels, the tropicks; which the sun describeth, being at the highest in the summer; and being at the lowest, in the winter: but the yearly passage of the sun, (passing from this tropick to that, and cut-

requi-

æquinoctialem duobus locis) vocant *zodiacum*: cujus poli rursus describunt polares circellos, circuitione quotidianâ.

541. Habes in ipsa cœlesti machina circulos invisibiliter positos, & cum illa irrevolubiles; sed sunt alii cuilibet loco proprii, & immobiles, *horizon & meridianus*.

542. Ubi ubi stas; prospectans circumcirca vides *horizontem*; confinia scilicet cœli & terræ, sive superioris hemisphærii ab inferiore: *horizontis* verò centrum est ubi tu stas; poli in cœlo, punctum tibi summum & imum (verticale illud vocant *zenith*; profundum illud sub terra, *nadir*;) duc verò iterum circulum per polos mundi, & *zenith* ac *nadir*, erit *meridianus*, ad quem sol delatus facit nobis meridiem. Vide Tab. II.

543. Quod attinet cursum astrorum, is uniformis est omnibus fixis, quasi vehantur uno eodémque orbe: inter quas primæ magnitudinis sunt quindecim, (*Arcturus*, *Lyra*, *Sirius*, &c. secundæ 45; tertiæ 208; quartæ 475; quintæ 216; sextæ 49; novem in super obscuræ, & quinque ne-

ting the equinoctial in two places) they call the zodiack: whose poles again do describe the little polar circles, by their dayly going about.

541. You have in the very celestial frame circles invisibly placed, and turning about with it; but there are others proper to any place, and immoveable, the horizon and meridian.

542. Wheresoever you stand, looking round about, you see the horizon; to wit; the confines of heaven and earth; or of the upper hemisphere from the lower: but the centre of the horizon is where you stand; it's poles in the heaven, the point which is highest and lowest to you (that vertical over your head they call zenith; that deep one under the earth, nadir:) but draw a circle again through the poles of the world, and the zenith and the nadir, it will be the meridian, at which the sun arriving maketh it noon with us.

543. As for the course [motion] of the stars, that's uniform to all the fixed ones, as if they were carried in one and the same orb: amongst which those of the first magnitude are fifteen, (*Arcturus*, *Lyra*, *Sirius*, &c. of the second 45, of the third 208, of the fourth 475, of the fifth 216, of the sixth 49; moreover there are nine obscure ones, and five bulosa:

bulosæ : omnes simul præter
propter 1020. quas quidem
per liberum aspectum in Eu-
ropa videre possumus : sed per
telescopia longè plures.

544. Sunt redactæ in certas
configurationes : cujusmodi
sunt, duodecim signa zodiaci,
ita insignita characteribus
suis: ♈ Aries, constat stellis
19; ♉ Taurus 44; (inter quas
sunt Pleiades,) ♊ Gemini 31;
♋ Cancer 28; ♌ Leo 39;
♍ Virgo 40; ♎ Libra 15;
♏ Scorpio 27; ♐ Sagittarius 32;
♑ Capricornus 27; ♒ Aqua-
rius 33; ♓ Pisces 35.

545. Extra zodiacum sunt
borealia signa; Ursa minor,
stellarum 8; Ursa major, 32;
Draco 33; Hercules 48; Cy-
gnus 31; Cassiopea 25, &c. Inter
australia signa maximè con-
spicius est Orion 39; Canis ma-
jor 18; Canis minor 7, &c.

546. Compertum habemus,
sicut fixæ, & cum his ☉ & ☾
(Sol & Luna) gyrationem
suam absolvunt circa terram,
tanquam suum centrum; ita
reliquos quinque Planetas gy-
rari circa Solem; quem ambit
orbe minimo ☿ (Mercurius)
quadrimestri tempore; ♀ (Ve-
nus) ferè duplo majore, no-
vendecem mensibus; ♂ (Mars)

cloudy ones: all together about 1020.
which truly by a free aspect we can
see in Europe: but through perspec-
tive-glasses many more.

544. They have been brought into
certain configurations: such as are
the twelve signes of the zodiack, thus
marked with their characters: ♈ A-
ries, consisteth of 19 starrs; ♉ Tau-
rus, of 44, (amongst which are the
Pleiades;) ♊ Gemini of 31;
♋ Cancer of 28; ♌ Leo of 39;
♍ Virgo of 40; ♎ Libra of 15;
♏ Scorpio of 27; ♐ Sagittarius
of 32; ♑ Capricornus of 27;
♒ Aquarius of 33; ♓ Pisces of 35.

545. without the zodiack are
the northern signs; Ursa minor, of
8 starrs; Ursa major, of 32; the
Dragon of 33; Hercules of 48; the
Swan of 31; Cassiopea of 25, &c. Amongst
the southern starrs the most
conspicuous is Orion, of 39; Canis
major of 18; Canis minor of 7, &c.

546. we have found out for
certain, that as the fixed ones, and
with these ☉ and ☾ (the Sun and
Moon) do finish their course [wheel-
ing] about the earth, as their centre,
so the other five Planets wheel about
the Sun: whom ☿ (Mercury) in a
very little orb goeth about in four
moneths time: ♀ (Venus) in one al-
most twice as big, in nineteen moneths
time: ♂ (Mars) in one so large,

ram amplo, ut circumeat terram quoque, fefquianno; ♃ (Jupiter) etiam ampliore, duodecim annis, minus bimenfe; ♄ (Saturnus) ampliffimo, novem & viginti annis, & femestri: qui omnes jam sunt apogei, jam perigei; videnturque nobis jam directi, jam retrogradi, jam stationarii, & veluti cum fixis fixè procedentes.

547. Progrediuntur itidem per zodiacum, at non tam exactè, ut Sol: excurrunt enim à via Solis hinc & illinc, (boream versùs & austrum versùs) plus & minus.

548. Dividunt autem Astronomi omnem circulum (æquè parvum ut magnum) in gradus 360. hosque rursus singulos in 60 minuta prima; & quodlibet horum in 60 secunda, &c. usque ad decima minuta, seu scrupula.

549. Calculando igitur motus planetarum in futurum, conficiunt ephemerides: id est, consignationes ad horam meridianam singulorum dierum anni, ubi quisque planeta futurus sit, & quo aspectu ad invicem: est enim inter planetas aut conjunctio, in eodem signo & gradu, ☿; aut

that he also goeth about the earth, in a year and halfs time: ♃ (Jupiter) also in a larger, in twelve years, wanting two moneths: ♄ (Saturn) in the largest, in nine and twenty years, and six moneths: all which now and then are apogei [from the earth,] now and then perigei [nigh the earth;] and they seem to us now coming forward, now going backward, now at a stand, and as it were fixedly marching with the fixed ones.

547. In the like manner they pass along the zodiack, but not so exactly, as the Sun: for they run out of the way of the Sun on this side and that, (towards the north and towards the south) more and less.

548. But the Astronomers divide every circle (small as well as big) into 360 degrees, and each of these again into 60 first minutes; and each of these into 60 seconds, &c. even to the tenth minutes, or scruples.

549. By calculating therefore the motions of the planets for the time to come, they compose ephemerides: that is, the consignations at the noon hour of every day of the year, where every planet shall be, and with what aspect towards one another; for there is amongst the planets either a conjunction, in the same sign and degree ☿; or sextile, the distance of sextilis,

sextilis, distantia per duo signa, ✱; aut *quadratus* (seu *quadratura*) per tria signa, □; aut *trigonus*, per quatuor, △; aut *oppositio*, per sex, ♂.

Vide Tab. 12.

550. Imprimis autem con-
signantur *ephemeridibus eclipses*
lunarium; postquam pene-
tratum est in causas, unde
fiunt: nempe deliquium Solis
contingere innovilunio, quum
inter nos & Solem Luna in-
tercurrens directè, illum ob-
nubit opaco suo corpore, hoc
est, inumbrat nos: Luna verò
eclipsatur in plenilunio, quan-
do opposita Soli obnubilatur
ipsa, incurrens in umbram
terræ: quod ut non accidat
quot mensibus, facit exspatia-
tio Lunæ extra viam Solis,
quam vocant *eclipticam*.

Vide Tab. 11.

551. Ultima pars astrono-
miæ est computus *fastorum*:
quo & spectat denominatio
dierum hebdomadæ à plane-
tis, ut dicantur dies *Solis*, dies
Lunæ, dies *Martis*, dies *Mer-
curii*, dies *Jovis*, dies *Veneris*,
dies *Saturni*.

552. *Menses* sunt, *Janua-
rius*, *Februarius*, *Martius*, *Apri-
lis*, *Maius*, *Junius*, *Julius*
(*Quintilis*,) *Augustus* (*Sextilis*,)

550. But first of all the eclipses
of the luminaries are set down in the
ephemerides; after they have search-
ed into the causes, from whence they
are: namely that the eclipse of the
Sun happeneth in the new of the
moon, when the Moon running di-
rectly between us and the Sun, hideth
[cloudeth] him with her dark body,
that is, shadeth us: but the Moon is
eclipsed in the full of the moon, when
being opposite to the Sun she is
clouded, running into the shadow of
the earth: which that it may not
happen every moneth, the straying of
the Moon out of the way of the Sun,
which they call the ecliptick line,
is the cause of.

551. The last part of astronomie
is the computation of the feasts:
unto which belongeth also the naming
of the dayes of the week from the
planets, that they are called Sunday,
Monday, Tuesday, Wednesday,
Thursday, Fryday, Saturday.

552. The moneths are, January,
February, March, April, May,
June, July, August, September,
October, November, December:

September, October, November, December: quorum primo, tertio, quinto, septimo, octavo, decimo, duodecimo, dati sunt dies 31, reliquis 30: Februario 28, quanquam anno bissextili 29: cum ei unus dies intercalatur: embolimæo verò anno fit accessio addititii mensis (embolimi) hoc est, decimæ tertię lunationis.

whereof in the first, third, fifth, seventh, eighth, tenth, twelfth, are 31 [one and thirty] dayes, in the rest 30: in February 28, although in the leap-year [bissextile] 29; when one day is interserted into it: but in the intercalated year there is an accession of an interserted moneth, that is, of the thirteenth moon.

C A P. LVI.

GEOGRAPHIA.

GEOGRAPHIE.

553. Ut nè simus ignari domicilii nostri, efficitur 1. per dimensionem terræ, in longum & latum; 2. per determinationem regionum habitabilium & inhabitabilium; 3. per descriptionem, quid egregium obveniat, hic, illic, isthic; idque sive terrestri globo; sive pictis alias geographicis tabulis, sive historicis enarrationibus.

553. That we may not be ignorant of our habitation, is caused, 1. by the measuring of the earth, in length and breadth; 2. by the quartering of countries habitable and inhabitable; 3. by describing, what notable thing happeneth, here, there, yonder; and that either with a terrestrial globe; or otherwise with painted geographical tables [maps,] or historical relations.

554. Terram esse globosam, patet; quia ab oriente in occidentem undique versum ambitur sideribus, & circumnavigatur maribus: transversim verò eunibus poli mundi elevantur & deprimuntur, unde & terreni globi magnitudo percognoscitur: nempe quia tendenti ab austro in boream (aut retrò) singulis quindecim Germanicis miliaribus attol-

554. It is manifest, that the earth is like a globe; because from the east to the west on every side it is surrounded with stars, and sailed about with seas: but to those that go athwart, the poles of the world are elevated and depressed, whence also the greatness of the globe of the earth is thoroughly known: namely because to one that goeth from the south into the north (or backward) in every fifteen German miles the

collitur

pollicetur arcticus polus, & dev-
ergit antarcticus, gradu uno,
evincitur totum ambitum ter-
ræ (qui est graduum 360) ha-
bere circuitum milliarium
5400; diametrum verò terræ
esse 1800, semidiametrum (à
superficie terræ ad ejus cen-
trum) 900.

555. *Latitudo* terræ æstima-
tur ab æquatore polos versùs,
utrinque per nonaginta gra-
dus; *longitudo* verò ab occasu
in ortum, per integrum cir-
cuitum 360 graduum; initio
sumpto à primo meridiano,
quem constituunt ad fines Eu-
ropæ, in Canariis insulis.

556. Ex latitudine terræ
prodeunt quinque terrestres
zonæ: media, interjacens cir-
culis tropicis, vocatur *torri-
da*: extremæ duæ intra polares
circulos comprehensæ *frigide*:
totidémque *temperatæ*, inter
has frigidas & illam torridam
alterutrinque sitæ.

557. In *æstuosa* (zona) pro-
pter perpetuam verticali-
tatem solis vehementissimi
sunt ardores, perpetuânsque
æquinoctium: contra in *gelidis*
plagis, propter solis collate-
ralitatem continuam vehe-
mentissima frigora, subque po-
lo ipso sex mensium dies, toti-

arctic pole is lifted up, and the an-
arctic pressed down, one degree, it
is evinced that the whole compass of
the earth (which is of 360 degrees)
hath the circuit of 5400 miles; but
the diameter of the earth 1800; the
semidiameter (from the surface of the
earth to it's centre) 900.

555. The latitude of the earth is
reckoned from the equator towards
the poles, on both sides by ninety de-
grees: but the longitude from the west
to the east, through the whole com-
pass of 360 degrees; taking the begin-
ning from the first meridian, which
they set at the bounds of Europe, in
the Canary islands.

556. From the latitude of the
earth proceed five terrestrial zones:
the middle one, lying between the
tropical circles, is call'd the torrid
zone: the two extremes comprehended
within the polar circles, frigid ones:
and as many temperate ones placed
on both sides between these two frigid
ones, and that torrid one.

557. In the torrid zone by rea-
son of the perpetual verticality of the
sun there are most vehement heats,
and a perpetual equinox: on the con-
trary, in the frozen quarters, by rea-
son of the continual collaterality of
the Sun most vehement colds, and
under the pole it self, the day of six
moneths, and the night of as many:

dem nox; in *temperatis tractibus* est alternatio tempestatum grata, cum successivis incrementis ac decrementis dierum ac noctium.

558. Unde oriuntur climata, per interstitium unius semihorii, nam qui longissimum diem habent, horarum duodecim cum dimidia, dicuntur habitare sub *climate primo*; qui 13 horarum, sub *secundo*; & ita consequenter.

559. Continentes, maribus à se invicem determinatæ, quinque recensentur; *Europa, Asia, Africa, America, Magellanica*: quarum singulæ continent vastissimas regiones, tum maritimas, tum mediterraneas, in mediterraneo sitas; circa se autem insulas plurimas, dissociatis gentibus & linguis: unde telurem undique habitari, aliisque aliis esse antipodes, jam constat.

560. *Europæi incolæ sunt; Hispani* (cum *Lusitanis* sibi conterminis) *Gallæ, Belgæ, Angli, Scoti, Hiberni, Dani, Sueci, Norvegi, Lapponesque*; item *Russi seu Muscovitæ, Lithuani, Poloni, Bohemi, Germani, Itali, Siculi, Dalmatæ, Hungari, Græci, Valachi, Thraces*: *Asiani sunt, Turcæ, Arabes, Armeniani, Persæ, Indi,*

in the temperate tracts [countries] there is a gratefull change of seasons, with successive increasings and decreasings of dayes and nights.

558. whence arise the climates, by the difference [distance] of one half hour: for those that have their longest day of twelve houres and a half, are said to dwell under the first climate, those of 13. houres, under the second; and so on.

559. The continents, separated from one another by seas, are accounted five; Europe, Asia, Africa, America, Magellanica: each of which contain most vast regions, as well on the sea-coast, as mid-land; placed in the middle of the countrey; but round about them very many islands of differing nations and languages; whence it is now manifest, that the earth is inhabited on every side, and that some are antipodes to others.

560. The inhabitants of Europe are, the Spaniards (with the Portugals bordering on them,) French, Dutch, English, Scots, Irish, Danes, Swedes, Norwegians, and Laplanders; also the Russians or Moscovites, Lithuanians, Poles, Bohemians, Germans, Italians, Sicilians, Dalmatians, Hungarians, Grecians, Wallachians, Chinese,

Chinenses, Scythæ nunc Tartari: Africani, Egyptii, Barbari, Abyssini, (alibi Æthiopes) Mauri (atque Æthiopes, &c.) Americani, Mexicani, Peruviani, Brasilienses, &c. nudi & investes: Magellani nobis adhuc incogniti sunt.

561. *Celebrati montes sunt; in Europa, Alpes, Pyrenæi, Carpathus, &c. in Asia, Taurus, Caucasus; in Africa, Atlas & Lunæ montes: famosa flumina verò; in Europa, Danubius, seu Ister, (est enim binominis) Borysthenes, &c. in Asia, Indus, Ganges, Oby, &c. in Africa, Nilus septem ostiis se in mare exonerans; in America, Maragnon, &c.*

562. *Inclytæ urbes sunt, in Europa, Constantinopolis, Roma, Venetiæ, Lutetia (Parisiorum,) Lisbona, Londinum, Amsterodamum, Praga, Cracovia, Mosqua, &c. in Asia, Alepo, Bagdet (cis Euphraten,) Ormus, Goa, Cambalu, Quinsay, &c. in Africa, Alcair, Fessa, Maroco, &c. in America, Mexico, Cusco, Lima, &c.*

Thracians: those of Asia, the Turks, Arabians, Armenians, Persians, Indians, Chineses, Scythians now Tartars: those of Africk are; the Egyptians, Barbarians, Abyssines, (the white Æthiopians) Moors (the black Æthiopians) Caffres, &c. the Americans are the Mexicans, Peruvians, Brasilians, &c. naked and without cloathing: those of Magellana are as yet unknown to us.

561. *The famous mountains are; in Europe, the Alps, Pyrenean mountains, Carpathus, &c. in Asia, Taurus, Caucasus; in Africk, Atlas, and the mountains of the Moon: but the renowned rivers are; in Europe the Danow, or Ister, (for it hath two names) Borysthenes, &c. in Asia, Indus, Ganges, Oby, &c. in Africk, Nilus, disburthening himself into the sea at seven mouthes; in America, Maragnon, &c.*

562. *The famous cities, are in Europe, Constantinople, Rome, Venice, Paris, Lisbon, London, Amsterdam, Prague, Cracow, Moscow, &c. in Asia, Alepo, Bagdet (on this side Euphrates) Ormus, Goa, Cambalu, Quinsay, &c. in Africa, Alcair, Fessa, Maroco, &c. in America, Mexico, Cusco, Lima, &c.*

C A P. LVII.

Chronologia cum historia.

563. *Chronologus supputat,*

Chronologie with historie.

563. *A chronologer reckoneth*

quâ ætate mundi hoc illudve acciderit, & quantum tempus præsens distet ab exortu rerum, vel quapiam alia observabili periodo: ut nè simus nescii, ubi jam simus, & quid fuerit gestum ante nos.

564. *Communis Epocha*, unde series annorum numerentur, eadem debuit esse omnibus jure, ab orbe condito: sed quia istud initium fuit incompertum plerisque, quælibet gens assumsit terminum alium memorabilem: supputaruntque *Judæi* olim ab exitu suo ex *Agypto*, nunc à desolatione *Hierosolymæ*; *Græci* ab *Olympiadibus*, (quas *Iphitus* instituerat celebrari anno quoque quinto inclusivè, aut quarto exclusivè,) *Romani* à condita sua urbe: *Christiani*, à Christo nato; *Turcæ*, à fuga *Mahumedis* (vocant æram *Hegiræ*, &c.) denique reges aspiciantur æras suas à cœptu regnorum suorum.

565. *Priscorum ruditas* non habuit alias *Historias*, præter quas narrabant sibi; aut innuebant posteris erectis quibusdam monumentis ut lapidum hinc inde depositorum, vel ligatorum in fune nodorum, &c.) res nihilominus

in what age of the world this or that happened [came to pass,] and how much distant the time present is from the first rise of things, or some other notable period: that we may not be ignorant where we are now, and what hath been done before us.

564. *The common Epocha*, from whence the series of yeares are numbered, ought by right to be the same to all, from the beginning of the world: but because that beginning was to most men unknown, every nation took some other memorable term: and the *Jews* heretofore reckoned from their departure out of *Egypt*, now from the desolation of *Jerusalem*; the *Greeks* from the *Olympiads*, (which *Iphitus* ordered to be celebrated every fifth year inclusively, or fourth year exclusively:) the *Romans* from the building of their city: the *Christians* from the birth of *Christ*; the *Turks* from the flight of *Mahomet* (they call it the date of *Hegira*, &c.) finally *Kings* begin their accounts from the beginning of their reigns.

565. *The rudeness of the ancients* had no other histories, but what they reported one to another; or intimated to posterity by setting up some monuments, (as of stones placed up and down, or of knots tied on a rope, &c.) yet notwithstanding things were forgotten, or changed into fables [tales:]

ta men

tamen veniebant in oblivia, aut transformabantur in fabulas: demum postquam literæ increbuerunt, cœperunt res gestas inferre in commentaria, unâ cum circumstantiis, nè quid affictitii aut subdititii irreperet.

566. Placétne tibi audire brevium quoddam chroniconum? memorabo carptim quædam singularia, de præcipuis mutationibus humani generis.

567. Primordia ipsa fuerunt nobis luctuosa, quia Adam cum sua Eva, facti ad imaginem Dei, & iussi dominari creaturis, abusi sunt concessio privilegio: Adæ verò primigenius (cui nomen fuit Caino) truculentus fratricida occiso Abele tradidit se impietati cum tota sua progenie, ejusque imitatione astutum omnes.

568. Indoluit Deus, quod fecisset hominem, immissoque cataclysmo delevit omnes, excepto Noâ servato cum suis in arca, A. M. (h. e. anno mundi) 1657. sed prius eripuit ad se pios, inter quos fuit Enoch vivus translatus in cœlum: cæteri primævi fuerunt quidem valdè longevi, nullus tamen attigit annum millesimum.

at length after letters grew rife, they began to set down acts done [matters achieved] in registers, together with their circumstances, lest any feigned or forged matter should creep in.

566. Are you willing to hear a certain compendium [abstract] of chronicles? I will hint at some particulars, concerning the principal changes of mankind.

567. The very first beginnings were but sad for us, Adam with his Eve, made after the image of God, and commanded to rule over the creatures, abused [mis-employed] the privilege that was granted them: and the first-born of Adam (whose name was Cain) a cruel fraticide, having slain Abel, gave himself with his whole progenie, up to impietie, and forthwith all men in imitation of him.

568. God grieved, that he had made man, and sending a deluge he destroyed all, except Noah, that was preserved with his in the ark, A. M. (that is, in the year of the world) 1657. but first he snatched to himself the godly, amongst whom was Enoch translated alive into heaven: the rest of the first age were truly very long-lived, yet none came up to the thousandth year.

569. A filiis Noë diffeminatæ sunt familiæ gentium : à Semo Asiatici , à Japheto Europæi , à Chamo Africani , & (ut probabile est) Americani : cum cœpisset ædificatio turris Babel , centesimo post diluvium : inde enim orta fuit confusio linguarum , & dispersio gentium , rursûmque inchoata recollectio sub regibus , quibus præcelluit Ninus Assyrius.

570. Tertio inde seculo, subversa est Sodoma & Gomorrha , demissio cœlitus igne ob spurcissimas libidines : sed Loth miraculo ereptus fuit , uxore respectante , & in statuam salis versâ.

571. Quadringentis post annis eduxit Moses populum Israëliticum ex Ægypto per mare rubrum, sicco pede, submerso Pharaone, cum exercitu eos insequente ; Israëlitz verò pascibant annis 40. (in deserto) manna ; dùmque pugnant (pro obtinenda terra Canaan) ad præces Josue sol occiduus stetit toto die.

572. Circa A. M. 2790. claruit Samson, tanta pollentia virium, ut discerperet leonem manu, convelleretque per amplum ædificium uno nixu : cu-

569. From the sonnes of Noah were spread abroad the families of the nations : from Sem the Asians, from Japhet the Europeans, from Cham the Africans, and (as it is probable) the Americans : when the building of the tower of Babel began, in the hundredth year after the deluge : for from hence began the confusion of languages, and dispersion of nations ; and again a recollection was begun under Kings, amongst whom the Assyrian Ninus excelled.

570. In the third age after, Sodom and Gomorrha were overthrown by fire sent down from heaven for their most filthy lusts : but Lot was miraculously rescued, his wife looking back, and turned into a pillar of salt.

571. Four hundred years after Moses brought forth the people of Israel out of Egypt through the red sea, on dry foot, Pharaoh being drown'd, with the host pursuing them : after that the Israelites for fourtie years eat manna in the wilderneß ; and whilest they fought to get the land of Canaan, at Joshua's prayers the sun being near his setting, stood still a whole day.

572. About the year of the world 2790. Samson was famous, one of so great an ability of strength, that he tore a lion in pieces with his hand, and threw down a very large house
jus

jus tempore *Troja* exciditur, post decennalem obsidionem, ob raptum *Helenæ* : proximo inde seculo *David* regnat, potentissimus regum : cui succedit *Solomon*, sapientissimus mortalium.

573. Circa A. M. 3040. propheta *Elias* claudit & recludit cælum precibus, rapi-turque curru igneo in cælum: A. M. 3240. *Ezechias* impetrat tria miranda, primò, ut adjicerentur ei (jam jam moribundo) quindecim anni vitæ : secundo ut sol visibiliter retrogradus fieret ; tertio, ut in exercitu *Senacheribi*, regnum ejus vastantis, trucidarentur 185000. ab angelo unâ nocte.

574. A. M. 3360. *Nabuchodonosor* conversus fuit in bel-luam, (ob superbiam) ut septennio pererraret montes, pastus gramine ; in cujus filio desiit monarchia *Chaldeorum*, transiitque ad *Persas* sub *Cyro*.

575. A. M. 3492. *Xerxes* educit exercitum contra *Græcos*, ter & vicies centenorum millium, & vincitur tamen : centesimo autem & quinquagesimo anno post *Alexander Magnus* triumphat de subjugato orbe, juvenis annorum

at one push : in whose time *Troy*, after a ten years siege (for the rape of *Helen*) is raz'd : in the next age after *David*, the most devout of *Kings*, reigns; and after him steps up *Solomon*, the wisest of mortal men.

573. About the year of the world 3040. *Elias* the Prophet shuts and opens heaven with his prayers, and in a fiery chariot is caught up into heaven : in the year of the world 3240. *Ezekias* obtains by prayer three wonderfull things ; first, that when he was just at point of death, fifteen years were added to his life ; secondly, that the sun visibly went backward ; thirdly, that in the army of *Senacherib*, who was laying wast his kingdom, there were slain in one night by an angel 185000. men.

574. In the year of the world 3360. *Nebuchadnezar* by reason of his pride was turn'd into a beast ; that seven years together he wandred over the mountains, living upon grass ; in whose son ended the monarchy of the *Chaldeans*, and in *Cyrus* his time past over to the *Persians*.

575. In the year of the world 3492. *Xerxes* leads out an armie three and twenty hundred thousand strong against the *Grecians*, and yet is worsted : and a hundred and fifty years after *Alexander the Great*, having overthrowen the *Persian* monarchy, triumphs over the conquer'd

32. moriturque repente: (cujus tempore confectura chartæ reperta est.)

576. Sub decursum pene quarti millenarii, arripiunt Romani imperium orbis, edomitis undique regibus terræ: ejus primus monarcha fuit *Julius Cæsar*, hinc *Augustus*; sub quo (A.M. 3970.) *Christus* nascitur.

577. A. Ch. (anno Christi)

324. Imperator *Constantinus* fit Christianus, ædificatque *Constantinopoli* transfert eò sedem, & constituit imperium orientale, occupatum post (A. Ch. 1453.) à *Turcis*, qui *Mahomedem* (natum A. Ch. 571.) sequuntur.

578. Circa A. Ch. 1300. cœpit inpotescere vis magnetis, quâ se obvertit ad polos mundi: quod dedit ansam fabricandi pyxidem nauticam, ejus ope detectum est alterum hemisphærium orbis, totusque mundus navigationibus factus pervius: ut gentes (prius seclusæ, & ignoratæ sibi invicem) jam possint colere communicationem utilitatum.

579. Sequuta est (A. Ch. 1442.) inventio *Typographiæ*, ejus beneficio mundus impletur libris, & quicquid sciri

world, at the age of 32. years, and dies of a sudden: (in whose time the way to make paper was found out)

576. Neer the running down of almost the fourth thousandth year, the Romans (having on all sides master'd the Kings of the earth) lay hold on the empire of the world: the first monarch whereof was *Julius Cæsar*, after him *Augustus*, in whose time in the year of the world 3970. Christ is born.

577. In the year of Christ 324. *Constantine* the Emperour turns Christian, and having built *Constantinople*, translates his seat thither, and makes the eastern empire, seaz'd afterward in the year of Christ 1453 by the *Turks*, who follow *Mahomer*, born in the year of Christ 571.

578. About the year of Christ 1300. began to be known the virtue of the load-stone, by which it turns it self towards the poles of the world; which thing gave occasion to make the mariners compass; by whose help the other hemisphere of the world was discovered, and the whole world made passable by navigations: that countreys formerly retir'd and unknown to one another, may now keep afoot a traffick of commodities.

579. There followed in the year of Christ 1442. the invention of *Printing*, by the benefit whereof the world is fill'd with books, and what-
potest

potest in lucem protrahitur : quæ utraque ars (nautica & typographica) accommodatissimum medium sunt ad diffundendum lumen sapientiæ, & fundandum inter nationes sapientiæ commercium; si modò gentes se invicem non vilipenderent : & cur ? ubique est aliquid boni & mali.

soever can be known is brought forth into light: both which arts (of navigation and printing) are a most convenient means for the diffusing of the light of wisdom, and the grounding of a commerce of wisdom among nations; if so be people would not set one another at nought: and why so? there's somewhat good and somewhat bad in every place.

CAP. LVIII.

LOGICA.

LOGICK.

580. *Logicus* intendit in processum cogitationum, ut non permittat eas evagari, aut mox reducat in viam: necessaria ars, si ulla! si optas videre epitomen ejus, præbe te attentum.

580. The logician minds the procedure of thoughts, that he may not suffer them to straggle, or may bring them back presently into the way again: an art necessary, if any! the epitome and breviat whereof if thou desirest to see, read with attention.

581. Quicquid obijcitur meditationi, (non enim possumus meditari de imperceptis) est aut *ignotum* (scil. quod nescitur an sit, vel quid sit, vel quantum sit, quale, ubi, &c.) aut *incertum* (nimirum de quo dubitatur, num sit, vel num sit id quod esse dicitur, aut putatur, vel num tantum, tale, ibi, &c.) aut denique *confusum*, quum videlicet multa simul menti se offundunt, càmque obruunt.)

581. whatsoever is the object of meditation (for we cannot meditate of things unperceiv'd) is either unknown (to wit that which we know not whether it be or no, or what it is, or how big it is, what kind of thing, where, &c.) or uncertain (I mean that which 'tis question'd, whether it is in being, or whether it is that which it is said or thought to be, or whether it is so big, such a thing, in such a place, &c.) or lastly confus'd, that is, when many things do at once pour in upon the understanding, and overwhelm it.

582. Dia-

582. *Dialecticus* igitur per-
tentans omnia vel sensu, si
res potest haberi coram; vel
ratiocinatione, si rei non clarè
prostantis, indicia tamen ali-
qua adsunt: vel alienis testi-
moniis, si aliter nequeat: labo-
rat investigare ignota, & depre-
bendere veritatem dubiorum, re-
digeréque indigesta in ordinem.

583. Quando explorat in-
exploratum ratione, perquirir
ea quæ circa rem sunt; causas,
& effecta; subiecta & adjuncta;
consentanea & dissentanea; simi-
lia & dissimilia; diversa & ad-
versa, seu contraria; ex his de-
mum extruens aut accuratam
definitionem, aut qualemcunq;
descriptionem.

584. Tum progreditur ad
divisionem rei, bimembrem, tri-
membrem, quadrimembrem,
&c. prouti se res dat: (exem-
pli gratiâ, homo dividitur bi-
partitò, in animam & corpus:
corpus tripartitò, in caput,
truncum, artus; annus qua-
dripartitò, in ver, æstatem,
autumnum, hyemem, &c.) ut
videat omnia particulatim.

585. *Diviso* verò est aut
distinctio, quâ res à re distin-
guitur, (ut homo doctus ab

582. So then the Logician mak-
ing a thorow tryal of every thing ei-
ther by sense; if the thing may be
gotten before him; or by reasoning,
if the thing be not clearly present: yet
there be some tokens of it: or by others
testimonies; if it cannot be other-
wise: labours to trace out things
unknown, and to find out the
truth of things doubtfull, and to
bring into order things that are
out of order.

583. When by reason he searcheth
out that which is undiscov'rd, he
inquires into the circumstances of the
thing; the causes and effects, the
subjects and adjuncts; those things
which agree to it, and those which
disagree; things like and unlike;
things different and cross, or con-
trary; raising out of these at length
either an exact definition, or some
kind of description.

584. Then he goes on to the di-
vision of the thing, into two, three,
four parts, &c. according as the
thing is: (for example sake, man is
divided into two parts, soul and bo-
die; the bodie into three, head, trunk,
and limbs; the year into four quar-
ters, spring, summer, autumn, win-
ter, &c.) that he may see every thing
piece by piece.

585. Now division is either di-
stinction, by which one thing is di-
stinguished from another, (as a man
indocto;)

indocto;) aut *partitio*, quâ totum dividitur in partes, (ut homo in corpus & animam;) aut *distributio*, quâ genus dispescitur in *species* (ut homo in marem & fœminam.)

learned from one unlearned) or partition, by which the whole is divided into it's parts, (as man into bodie and soul) or distribution, by which a genus or kind is parted into it's species or sorts, (as man into male and female.)

586. Ex inventis cogitationibus fiunt *theses*, sive *sententiæ*, quibus jam aliquid de aliquo affirmatur aut negatur: in quarum unaquaque tria concurrunt, *subjectum*, *prædicatum*, *intervenienti*sque *copula*; ut, *logica est discenda*: quæ tria si necessario cohærent, fit *axioma*, effectum indubitatæ certitudinis.

586. Of thoughts invented are made theses: [positions,] or sentences, whereby now something concerning something is affirmed or denied: in every one whereof, three things concur, the subject, the predicate, and the copula coming between; as, logick is to be learned: which three if they necessarily cohere, an axiom is made, a maxim of an undoubted certainty.

587. Si autem quis dubitat, an *prædicatum* de *subjecto* (sive terminus *major* de *minore*) rectè affirmetur vel negetur, probat assumpto termino medio (ut 1. *logica est* 2. *discenda*, quia 3. *utilis*;) facitque inde *sylogismum per tres propositiones*, è tribus ter transpositis terminis constructas: quarum prima, *major*, proponit basin *rationis*, sic; *utilia sunt discenda*: subsumit minor, *logica est utilis*: conclusio sequitur, ergo *logica est discenda*.

587. But if any one doubt whether the predicate of the subject (or the major term of the minor) be rightly affirmed or denied, he proveth it by taking a middle term (as 1. logick is 2. to be learned, because 3. profitable) and frameth from thence a syllogism by three propositions, made up of the three terms thrice transposed: whereof the first, the major proposeth the basis or ground of the reasoning thus; profitable things are to be learned: the minor subsumeth, logick is profitable: the conclusion follows; therefore logick is to be learned.

588. Ita ex præmissis & concessis propositionibus dua-

588. By this means out of two propositions premis'd and granted, a
bus

bus inferitur tertia, quâ incertitudo tollitur: notabis, dissimulari interdum alteram præmissarum, (hoc est, non poni expresse, subintelligi tantum) fierique *enthymema*, syllogismum defectivum: ut, *logica est utilis, ergo discenda*; vel, *utilia sunt discenda, ergo & logica*.

589. Quæstio magnopere controversa, & disputabilis in utrâmq; partem, dabit disputationem: ubi alius argumentatur pro affirmativa parte, alius pro negativa; alterq; solvit alterius argumenta & objectiones, donec veritas pateat: sed captiosus disputator *sophista* dicitur, qui argutatur, hoc est, detortâ argumentatione fallaciter illudit.

590. Quando verò indifposita, indiscreta, confusumque se oggerentia, discernenda sunt, (aut disturbata redigenda in ordinem) est *methodus*, habens tres summas leges: *primam*, ut eatur à notioribus ad ignotiora, (hoc est, à toto ad partes, hinc ad particulas; & à generalioribus ad specialiora:) *secundum*, ut omnia hæreant sic, quomodo ab invicem fiunt, ut notio notionem trahat, (sicut in catena annulus ab annulo trahitur:)

third is brought in, whereby the uncertainty is took away: mark, that one of the foregoing propositions is sometimes eclips'd, (that is, is not expressly set down, but only understood) and that an enthymem is made, a defective syllogism: as, logick is profitable, therefore to be learned; or, profitable things are to be learned, therefore also logick.

589. A question very much controverted, and disputable on both sides, will afford a dispute; where one argues for the affirmative, the other for the negative: and they answer one another's arguments and objections, till the truth be clear'd: but a captious disputant is term'd a sophister, who quibbles, that is, by wrested arguing craftily makes sport [playes the wag.]

590. But when things not duly placed, not distinguished, and that offer themselves confusedly, are to be set apart (or things disorder'd to be brought into order) this is method, which hath three grand rules; the first, that we proceed from things more known to those less known, (that is, from the whole to the parts, thence to the smaller pieces; and from generals to particulars) the second, that every thing hang together in that order as they flow from one another, that motion may draw motion, (as in a chain link is drawn by link:) the
tertiam,

tertiam, ut omnia expriman-
tur verbis perspicuis, ambi-
guitatis nihil habentibus.

591. Secundum has regu-
las procedens *logicus*, si *sophi-*
smata animadvertit latitare
in verbis, declarat voces ob-
scuras, distinguit ambiguas,
determinat indeterminatas,
limitat indefinitas, restringit
generales: si quid possit sumi
largius, excipit nominatim,
evincitque omnia rationibus,
ut conceptus sint clari: sic po-
tenter dilucidans tenebrosa,
refutans paralogismos, dige-
rens inordinata.

592. Sed contexere tam
perspectè cogitata propria, est
synthesis; retexere aliena, *ana-*
lysis; conferre alia cum aliis,
syncretis: quarum inscientia
facit perplexitatem.

third, that every thing be express'd
in clear perspicuous words, which
have no ambiguity in them.

591. The logician proceeding
according to these rules, if he find
any sophisms [quirks] to lie in the
words, he clears words that are ob-
scure, distinguishes the ambiguous,
determines those that are undeter-
min'd, limits the indefinite, restrains
those of a general sense, if any thing
may be taken more at large, he parti-
cularly excepts it, and makes out eve-
ry thing by reasons, that conceptions
may be clear: thus to purpose clearing
things that are dark, confuting mis-
takes, ordering things out of order.

592. But to wind up such clear
thoughts of our own, is *synthesis* or
composing; to unwind other mens
thoughts, is *analysis* or resolving;
to compare one with another, is *syn-*
cretis or collating: the ignorance of
which quirks breeds perplexitie.

C A P. L I X.

Anemonica.

593. Etiam *memoria* potest
excoli ad citam impressionem,
& firmam retentionem, pro-
mitamq; redditionem eorum,
quæ percepta sunt semel.

594. Postquam enim depre-
hensum est experimentis, illam
concatenare notiones, & reco-
gnoscere per vestigia, inven-

The art of Memorie.

593. Memorie also may be pra-
ctis'd to a quick impression, and a
firm retention, and a readie return-
ing of those things, which have been
once perceived.

594. For after it was found out
by trials, that it chains notions to-
gether, and recovers them by the
track, the masters of memorie found

runt *mnemonici* machinamenta, dispositas per loca certa imagines certas, quarum intuitu fit, tum imaginatio fortissima (etiam per tenebras & absentiam) tum retinentia prævalida, tum reiteratione earundem reminiscencia admiraculum velox.

595. Sed hæc localis memoria creditur debilitare iudicium, præcipuum bonum hominis; & facere ex homine pſittacum, recitatorem alienorum: tutior ergò fuerit cultura memoriæ per attentam intuitionem, & pensiculatam dijudicationem, crebramq; iterationem, rerum ipsarum, in proprio loco & propriâ formâ: nempe immorando rebus, & praxi rerum, quantum opus.

out engines, certain images dispos'd in certain places, by viewing whereof, there is made both a very strong imagination (even in the dark and in absence) and a fast retention, and by going often over them again a remembrance wonderfully swift.

595. But this local memorie is believ'd to weaken the judgement, the chief good of man; and of a man to make a parrot, a sayer over of other folks words: wherefore twill be a more safe exercise of memorie by an attentive inspection, and leasurely consideration, and a frequent iteration of the things themselves, in their proper place and proper form: to wit, by staying on the practise of the things, as much as is convenient.

C A P. L X.

Prognostica.

596. Desiderium præsciscendi futura (innatum menti humanæ) adinvenit artes divinationes, non sine admistione vanitatis.

597. *Physiognomon* enim conjectat futuros hominis eventus, è lineamentis corporis (speciatim *chiromantes*, è lineamentis manuum; *metoposcopus* è lineamentis frontis;) *oneiromantes* ex insomniis.

Prognosticks, or Fortune-telling.

596. The desire of fore-knowing things to come (a thing inbred in the mind of man) hath found out the arts of divination, not without a mixture of vanitie.

597. For a physiognomer conjectures the future events of a man, by the lineaments of his bodie (particularly, the chiromancer, by the lines of his hands; the physnomist by the lines of his forehead;) but the expounder of dreams by his dream.

598. *Astrologus* inquirens influxum astrorum in sublunaria, erigit ad quodvis datum tempus *schema cœli*, è quo considerans aspectus planetarum, tunc futuros, prædivinat constitutionem tempestatum, fertilitatem annonæ, & similia contingentia: quin & è positura siderum (constellationem vocant) sub horam *nativitatis*, conscribit prognosticon de nati vita & morte, sanitate & morbis, temperamento & moribus, fortuna & infortunio. *Vide Tab. 12.*

599. *Auguria* paganorum antiquata jam sunt, ubi *augur* vaticinabatur ex avium garritu, aut volatu: & *aruspicina*, ubi *aruspex* ab inspecta ara: & *extispicium*, ubi *extispex* dispectis extis sacrificiorum; & *sortilegium*, ubi *sortilegus* ex projectis sortibus, vaticinabatur: & quæ plures ejusmodi illicitæ hariolationes fuerunt.

600. *Infamis magia* etiam interdicta est: ubi *magus* cum malis geniiis colludens; & *necromantia*, ubi *necromantes*, diabolum sub alicujus demortui personâ evocans, & adjurans arcana scitatur: sed neutiquam opus est sapienti viro tam pe-

598. *The astrologer* inquiring into the influence of the starres upon sublunary things, erecteth, at any time given, a scheme of heaven; by which considering the aspects of the planets, then to come, he fore-conjectureth the constitution of the season [weather,] the plenty of provision, and such like contingencies; and moreover out of the position of the starres (they call it the constellation) about the hour of nativitie, he writeth a prognostication of the life and death of the party then born, his health and diseases, temper and demeanour, fortune and misfortune.

599. *The auguries of the heathens* are now grown out of use, where the soothsayer (call'd *augur*) by the chirping or flight of birds did foretell things; and their *aruspicina*, where the *aruspex* by looking on the altar: and their *extispicium*, where the *extispex* by viewing the entrails of the sacrifices: and *sorcerie*, where the *sorcerer* by casting lots, foretold things to come: and many other unlawful divinations of that sort.

600. *Infamous magick or witchcraft* hath also been forbidden: where the magician by collusion with evil spirits, and *necromancie* or the black art, where the conjurer calling up the devil in the shape of some dead man, and conjuring him, enquireth out secrets; but a wise man

riculosâ curiositate ; quia experientiâ rerum edoctus prænoſſe poſteſt multos effectus in ſuis cauſis : unde illud ſci-
tulum ; *Omnis bonus philoſophus, (medicus, jureconſultus, theolo-
gus) vaticinator.*

*bath no need of ſuch dangerous cu-
rioſitie; becauſe being taught by the
experience of things, he may fore-
know many effects in their cauſes :
whence that prettie ſaying ; every
good philoſopher, (phyſician,
lawyer, divine) is a prophet.*

C A P. LXI.

E T H I C A.

Ethicks, or Morality.

601. Præcellentiſſima pars philoſophiæ *ethica* eſt : infor-
mans hominem de moderamine ſuiipſius : quomodo queat vivere & mori imperturbatus animo, ſanus corpore, lætus conſcientiâ, nec ſibi gravis nec aliis, & ſine omni damnoſa indigentia (ſub favore Numinis.)

601. *The moſt excellent part of
philology is ethicks : informing a
man concerning government of him-
ſelf: how he may live and die undiſ-
turb'd in mind, healthy in body, joy-
full in conſcience, neither burthen-
ſome to himſelf nor to others, and
without all diſadvantageous want (by
the bleſſing of God.)*

602. Vis hoc etiam ſcire ? compendio dicam : *ſapientia, virtus, innocentia*, ſunt quæ hominem tranquillat & lætificat, amabilémque & laudabilem reddunt ; *ſtultitia* contra, *vitium, noxa*, perturbant, meritóque odibilem & vituperabilem faciunt.

602. *Hath thou a mind to know
this alſo ? I'll tell thee in a word :
wiſdome, virtue, innocence, are
the things which quiet and cheer a
man, and render him amiable and
commendable: on the other ſide folly,
vice, miſchief diſturb him, and do
deſervedly make him hatefull and
blame-worthy.*

603. At verò virtutum ſtudium non intruditur nobis nudis præceptionibus ; neque vitiorum odium nudis interdictionibus, laudationibus & vituperiis ; imò nè quidem præmiis & pœnis : oportet pe-

603. *But for all that the love of
virtues is not thruſt into us by bare
precepts ; nor the hatred of vices by
bare prohibitions, by praiſings and diſ-
praiſings ; no nor by rewards and pu-
niſhments neither ; it behoves us tho-
roughly to underſtand, how virtue*

nitiſ

nitus perspectum habere, quàm in nobis virtus perficiat imaginem Dei, quàm vitium destruat.

604. *Virtus* consistit in mediocritate, vitium in excessu vel defectu: nam excedere decorum, aut ab illo deficere, est utrique transgredi, licet transgressionum gradus sint.

605. Nempe si quis impròbè agit incogitantia, est delictum; si cogitatè facinus; si studio, nequitia; si enormiter, scelus (flagitium); si malitiosè, ut alicui ægre fiat, perversitas: perversum autem non pudet malitiæ: & qui non resistit consuetudini sensum obrepenti, inemendabilis fiet, seque ipsum perdet, & nomini inuret indelibilem maculam.

606. Tu si vis regere te aptè, habes necesse præcognoscere 1. fabricam naturalium inclinationum, ut non ignores quò te illæ rapiant, & quomodo illis obsequendum & aut resistendum sit, ne extra limites abeant; 2. objecta, in quæ tuæ propensiones feruntur: quæ sunt, tu ipse, proximus, Deus; 3. invitamenta & irritamenta, quæ huc & illuc trahunt.

perfects, how vice defaces the image of God in us.

604. *Virtue* consists in a mean, vice in excess or defect: for to go beyond what's fit, or to come short of it, is indeed to transgress, though there are degrees of transgressions.

605. To wit, if any one do wickedly through incogitance, 'tis a miscarriage; if upon deliberation, a heinous fault; if on purpose, a naughty prank; if enormously, a villanous act (a grievous sin); if out of malice, to vex any body, forwardness: now a forward person is not ashamed of his mischievousness; and he who doth not withstand a custom creeping leisurely upon him, will become incorrigible, and will undoe himself, and brand his name with an indelible mark.

606. If thou would'st order thyself handsomely, thou hast need to be acquainted aforehand with 1. the temper of thy natural inclinations, that thou mayst not be ignorant whether they carry thee, and how thou must either comply with them or withstand them, that they may not go beyond their bounds; 2. the objects, towards which thy inclinations are carried: which are thy self, thy neighbour, and God; 3. the motives and incitements, which draw them hither and thither.

607. Summa summarum erit, ut sis prudens in omnibus, quæ unquam occipis; erga te ipsum seorsum cautus, erga proximum æquus; erga Deum reverens: tandem in bono integer, sincerus & constans.

607 The total summe of all will be, that thou be discreet in all things which thou ever takest in hand; towards thy self in private, wary; towards thy neighbour just; towards God reverent; in a word, in that which good is, intire, sincere and constant.

C A P. LXII.

P R U D E N T I A.

Prudence, or Discretion.

608. Prudentia est in eo, ut nihil unquam cogites aut loquaris, aut agas, incassum, aut incertum, omnia circumspicere: æstimando quamlibet rem ex sua dignitate (magnam magni, vilem vili) bonæque sic prosequendo ut assequaris, mala sic fugiendo ut effugias.

608. Discretion is in this, that you never think, or speak, or act any thing in vain, or at random, every thing circumspicte: by prizing every thing according to it's worth (a good thing at a high rate, a bad one at a low rate) and by pursuing good things so that you may obtain them, & flying evil things so that you may escape them.

609. Hoc si vis, prospice ubique finem, dispice media, attende occasione, nè elebatur; hoc est, expende 1. aliquid optandum aut inceptandum sit? 2. num sic an secus aggreddendum? 3. & quid impedimenti obvenire possit, ni præveniatur.

609. If you will do this, look in every action before-hand on the end, view well the means, wait upon a fit occasion, lest it slip away; that is, bethink your self 1. whether the thing is to be desired or undertaken? 2. whether to be set upon thus or otherwise? and 3. what hindrance may thwart you? unless it be prevented?

610. Finis semper sit aliquid verè honestum & utile; simulque (si fieri potest) jucundum; quod te adeptum esse pænitere non potest; perniciosius

610. Let alwayes the end be something truly honest and profitable; and withall (if it can possibly be) pleasant; which it may not repent you to have obtained; therefore ab-

cious

ciosis ergo semper abstine, supervacaneis semper superfede, atque si datur optio inter plura, præfer bono melius, meliori optimum.

611. *Media* provide, quantum potes, 1. *certa & infallibilia*; 2. *facilia usurpatu* (difficile habetur pro impossibili:) 3. *pauciora* potius quam plura; necubi se mutuo impédiant.

612. Postquam verò præstitueris *finem*, & denotaveris *media*, nè hæc frustra sint, præcogita etiam *modus* utendi rectè mediis: ubi si quid impedimenti præcognoscis, anteveni tempestivè; tum auspicare celeriter, perge cautim, absolverèque matura strenuè, nè te vel ab initio præcipites (præpropere agendo) vel remoreris in cursu, vel desistas ante adeptionem finis.

613. Sic ubique agere si nôris, eris *providus*: tamen si (ob lubricitatem rerum) quandoque nos circumspéctio nostra frustretur, non tamen semper poterit: ut illos *vecordes*, qui appetunt illicita; & *delirios*, qui suscipiunt impossibilia; & *inconsideratos*, qui occasiones agendi negligunt; & *stolidos*, qui oceptant multa,

stain alwayes from pernicious things, alwayes forbear superfluous things, and if you have choice amongst many things, prefer the better thing before the good, the best thing before the better.

611. Provide for the means, as much as you can, 1. certain and infallible: 2. easie to be made use of (that which is difficult is accounted for impossible:) 3. fewer rather then more; lest any where they hinder one the other.

612. But after you have fore-appointed the end, and set down the means, lest these should be in vain, forecast also the wayes of using the means aright: where if you fore-know any impediment, meet it in time; then begin quickly, go on carefully, and make haste to dispatch it stoutly, lest you either run headlong at the beginning (by going hand-over-head to work,) or make a stop in your course, or leave off before you come to the end.

613. If you know how to do this every where, you will be provident: although (because of the slipperiness of things) now and then our circumspéction deceives us, yet it cannot alwayes; as those mad-men, who long for things unlawfull; and those do-tards, who undertake things impossible; and those unadvised men, who neglect the occasions of acting; and those foolish ones, who begin many

perficiunt nihil.

614. Sed loquamur de virtutibus partitò, ut videas distinctim, quid debeas tibi, proximo, Deo.

things, and finish nothing.

614. But let us speak of the virtues asunder, that you may see distinctly what you owe to your self, to your neighbour, to God.

C A P. LXIII.

S E D U L I T A S.

615. Tibi ipsi debes observationem, hoc est, cautum assiduümque studium pro conversatione tui: quodpositum est in moderatione laborum, cupiditatum, adversitatum.

D I L I G E N C E.

615. You owe to your self observance, that is, a wary and daily study for your own preservation: which is placed in the ordering of labours, desires, adversities.

616. Laborum: nè hos defugiendo dedas te ignaviæ, vitæque sic instituas, quomodo nec tibi sit usui, nec aliis: aut rursus nimietate laborum frangas vires, teque corrumplas, vel etiam occidas.

617. Fuge utrumque hoc extremum; magis tamen pigritiam & torporem, quia proclivius est peccare in hanc partem: laboriosus esse incipe maturè, & desine serò, omnia salva erunt.

618. Dum alii suarum rerum satagunt, tu tibi deesse noli; nullos honestos labores detrecta, aut subterfuge, sed cum alacritate subi, orfósque urge sedulò & constanter (citra tergiversationem

616. Of labours: that thou do not by avoiding them give thy self up to idleness, and so lead thy life, that it neither be usefull to thy self, nor to others: or on the other side by overmuch labour weaken thy strength, and spoil or even kill thy self.

617. Shun both these extremes; but more especially sloath and laziness, because one is more apt to offend on this hand: begin early [betimes] to be laborious, and end late, all will be well.

618. while other men follow their occasions [business,] be not thou wanting to thy self; refuse no honest labours, or avoid them, but with cheerfulnesse undergoe them, and being begun, ply them diligently and constantly (without shifting and delay,) un-

& dilationem) donec iis defungaris.

til you have performed [set an end] to them.

619. Ignavis sunt feriæ semper, (ut proverbio aiunt) etiam profestis diebus, tu contra, esto etiam in otio negotiosus; hoc est, dum vacas recreationi, (permittitur enim interquiescere lassus, at non segnescere :) nè torpeas, sed lassus viresculas vividè recolligas.

619. Every day is a holy-day to sluggards (as the proverb is) even the working-daves; do you on the contrary, be even in leisure busie; that is, whilest you are at your recreation (for it is allowed to him that is weary to take his rest, but not to grow lazie :) be not slothfull, but lively recruit your little tired forces.

CAP. LXIV.

TEMPERANTIA,

TEMPERANCE.

620. Philautia est ingenerata nobis, & operatio eorum quæ nos hilarant : sed oportet temperare sibi ab illecebris, quæ illectare solent nostras concupiscentias, ut intricemur rebus impertinentibus ad veram beatitudinem, & demetemur fucosis bonis, agentisque ea primariò, quæ erant agenda secundariò, vita non utamur, sed fruamur; imò nè fruamur quidem, sed inquietemur.

620. A self-love is created in us, and a desire of those things which rejoyce us: but one ought to keep himself from inticements, which are wont to allure our concupiscences, that we may be entangled in things, not pertaining [belonging] to true happiness, and besotted with counterfeited good (things,) and doing those things first which ought to be done second, not use our life, but enjoy it; and indeed not enjoy it neither, but be disquieted.

621. Istud fit, quando immoderatè obsecundantes cupiditati voluptatum, vel opum, vel honorum, vel scientiæ, delabimur in tetra vitia, belluatiorem, lasciviam, avaritiam, ambitionem, curiositatem.

621. That comes to pass, when immoderately giving our selves to the desire of pleasures, or wealth [riches,] or honours, or learning, we slide into paltry vices, gluttony, wantonness, covetousness, ambition, curiosity.

622. Tu esto *temperans* & *sobrius*, abstine à superflua alimonia: cum esuris, ede; cum sis, bibe, quantum satis: tu studiose, & quicunque agis vitam sedentariam, esto contentus prandiò & cœnâ, relinque jentaculum & merendam operariis: quia corpus nimia saturitate pigrescit, animus vero ad obeunda munia fit inhabilis.

623. Vide enim voraces & bibaces *epulones* & *glutones*, quam vorando sua absumunt! & gulosos *lurcones*, quàm se vel quotidie potando ingurgitant, insatrabilesque pantices esfarciant! *inebriati* verò brutè bacchantur, vociferantur conserunt manus, titubant, lapsant, screant, sputant, & (cum bona venia) meciunt, visiunt, pedunt, vomunt, & tantum non resorbent quæ evomuerunt, belluli homunculi!

624. Quid præterea? Ut mens est perspicax *abstemius*, sic amentia hebetat & furiat *potos*, (temulenti enim fiunt turbulentis; vinolenti, violenti;) tum crapula hesternæ molestatur postridie ebrios; ebriosos verò tremor, vertigo, arthritis, & alii dolorifici morbi, dive-

622. Be thou temperate and sober, abstain from over-much food: when thou art hungry, eat; when thou art a-thirst, drink, as much as sufficeth: thou that art a student, and whosoever dost lead a sedentary life, be contented with a dinner and a supper, leave breakfast and bever for work-men: because ones body with over-much filling groweth lazie and sickly, and the mind becometh indisposed for the performance of duties.

623. For do but see the gormandizing and tipling belly-gods and gluttons, how by devouring they waste their estate! and the greedy roisters, how even every day with tipling they soak themselves, and stuff their insatiable paunches! and when they are fuddled, how brutishly they play the mad bedlams, whoop and hollow, grabble, stumble, reel, hake, spawl, and (for reverence) piss, bewray themselves, fart, spue, and e'en lick up their vomit again, ho brave boyes! [fine companions.]

624. What else? as the mind of the abstemious is quick, so sottishness dulls and enrages those that are drunk; for tiplers are troublesome, and those that are cup-shot, outrageous: then yesterday's surfeit troubleth those that were in drink the next day after; but drunkards are seized with trembling, megrim, gout, and xant,

xant, & cruciabiliter è vita exturbant: ecce suavitudo voluptuantium!

625. Quid autem libidinosa incontinentia? habet perditionem eandem, sed turpitudinem majorem: lascivire enim belluinum est (quanquam belluæ non cœunt, nisi prolis causâ:) quàm pudenda igitur sceditas, quòd adulter alienum polluit torum, scortator suum; concubinus pellicem alit, ganeo per lupanaria, grassatur, meretrix pudicitiam prostituit, leno & lena alios seducunt & inquinant: vah propudia! omnes detestabiles & execrandi.

626. Cæterum non solum adulteria, (aut incestus, stupra, scortationes, illegitimi concubitus;) sed & omnis venerea salacitas, indecoræ bastationes, amatorie cantilenæ, inverecundæ collocationes, imo obscenæ cogitationes, impudicitia sunt, scédantque animum.

627. Tu sis castus, pudicus, impollutus; absit procacitas in gestibus, obscenitas in dictis, petulantia in factis: & nè te ulla spurcicies contamine, tua castitas expectet matrimonialem vitam; nè insanias, deperundo scæminas efficiam.

other painfull diseases, and are miserably turn'd out of this life: behold the frolicks of Epicures.

625. But what is lustfull incontinence? it bath the same ruine, but a greater dishonesty; for it is a beastly thing to be lascivious. (although beasts do not couple but for issue sake:) how shamefull a filthiness is it therefore, that an adulterer defileth another man's bed, a fornicator his own, a whore-master keepeth a quean; a ruffian haunteth the stews [bawdy-houses;] an harlot prostituteth her chastity, a pander and a bawd entice others, and corrupt them: fie upon them rakeshames! all detestable and accursed.

626. But not only adulteries, (or incests, whoredomes, fornications, & unlawfull couplings,) but also all unlawfull lechery, unseemly kissings, love-songs, immodest discourses, yea, obscene thoughts, are a kind of lewdness, and defile the minde.

627. Be thou chaste, shamefaced, undefiled; lay aside wantonness in your carriage, ribaldry in your talk, lasciviousness in your actions: and that no filthiness may corrupt you, let your chastity expect a marriage-life; be not mad, with falling desperately in love with women.

628. Im-

628. *Immodica cupido habendi gignit avaritiam, inexplabile malum: quia avarus nunquam saturatur opibus (dum præmetuit necessaria sibi de fore, annititurque per fas & nefas ditescere;) quamvis possideat marsupia conferta pecuniis, & cistas vestimentis, scriniaque cimeliis, & omnifaria supellectile, egestatem nihilominus timet, adeoque experitur in copia inopiam: tandem tamen malè parta malè dilabuntur, per hæredes prodigos.*

629. *Tu esto frugalis, ut æque fugias tenacitatem atque prodigalitatem: opes nec appetre immoderatè, aut coacerva anxie, nec sperne insipienter, nec prodige, sed comparce; & quidquid accipis & expendis, refer in codicem acceptorum: affatim divitiarum erit, si non ægeas, parsimoniâque ipsa tibi thesaurus erit.*

630. *Cupiditas eminendi instigat homines in ambitionem, elationem, fastum, jactantiam: ut sibi arrogando nimia, aut superbiant tacitè, aut se & sua jactent, ostentent, immodicè tollant, propalam; ambiantq; honores & dignitates impo-*

628. *An immoderate desire of having begetteth covetousness, an unsatiable evil: because a covetous man is never satisfied with riches (whilest he feareth afore-hand that he shall want necessaries, and striveth to grow rich right or wrong,) although he hath bags cramm'd with money, and chests with clothes, and coffers with jewels, and all sorts of household-stuff; yet notwithstanding he is afraid of poverty, and by this means finds scarcity in the midst of plenty: yet at length goods ill gotten are ill spent by spend-thrift heirs.*

629. *Be thou thrifty [a good husband,] that thou mayest alike shun niggardlinesse and prodigality: neither covet riches immoderately, or heap them up carefully, nor despise [slight] them foolishly, nor squander them away lavishly, but be sparing; and whatsoever you receive or disburse [lay out,] set it down in a book of accounts: there will be wealth good store, if you do not want, and thrift will be a treasure to you.*

630. *The very desire of being eminent provokes men to ambition, haughtiness, pride, boasting; that by arrogating to themselves too much, they either grow proud within themselves, or vapour, and mightily vaunt themselves and what belongs to them, openly: and seek honours and pre-*
 center=

tenter, & affectent præconia vulgi insolenter, quandòque etiam ridiculè, vani gloria-tores.

631. Te commendet *moderatio*: habe bona tua tibi, citra ostentationem; utque sis venerabilis potius, quàm ut videaris, cura: si honor te dignus offertur, admitte eum reverenter; aut, si res tuæ non ferunt, recusa moderatè.

632. *Aviditas sciendi* culpabilis tum est, quum *ardelio* resciscere præter modum multa avens, exsatiarique sciscitationum non valens, immiscet se omnibus, captans remusculos undique, & quærens elicere omnia quæ celantur, affert inquietè aliis & sibi: quin *curiositas* hæc impulit quosdam eò, ut appetitione omniscientiæ pacti sint cum satana (nefarium dictu!)

633. Tu tempera desiderium scientiæ: disce non multa, sed delecta; non futilia, sed utilia, (quædam præstat nescire) quodque tua nihil interest, percontari desine: ita tibi & aliis quies erit.

ferments eagerly, and long after the praises of the common people insolently, and now and then ridiculously, being vain braggadocio's.

631. Let moderation commend thee: keep thy good things to thyself, without ostentation: and study rather to be honourable, than to seem so: if honour fit for thee be offered, entertain it reverently: or if thy concerns bear it not, refuse it moderately.

632. The greediness of knowing is then blameable, when a busybody coveting to know many things beyond measure, and being not able to be satisfy'd with enquiries, intrudeth into all things, catching at reports every where, and endeavouring to bring out all things which are concealed, he disquieteth both himself and others: moreover this curiosity hath driven some to that pass, that out of a desire of all learning, they have made a bargain with satan (a heinous thing to be spoken!)

633. Do you temper the desire of knowledge: learn not many things, but choice ones; not vain things, but profitable; (it is better to be ignorant of some things) and that which nothing concerns you, cease to enquire after: by this means your self and others will be at rest.

F O R T I T U D O.

Fortitude, or courage.

634. Fuite, quomodo cavendum sit, nè nos res allicientes jucunditate seducant à via virtutum: sequitur, quomodo præstandum sit, nè nos abducant illæ, quæ conterrent difficultatibus, periculis, adversitatibus.

635. Hic opus est fortitudine animi: quæ vincat omnia per æquanimi-
tatem, magnanimitatem, patientiamque.

636. *Æquanimus* est, qui ad omnem eventum indifferenter se habet, hoc est, neque se effert rebus prosperis, neque subsidit calamitosi: *magnanimus* non consternatur ad casus repentinos, quibus videt periclitari se & propositum suum, sed quærit viam, aut declinare prudenter, aut si videt inevitabiles, perumpere intrepidè: *patiens*, fortiter perfert malum, cui elabi non potuit, nec propterea cedens de tramite recti, occallescit ad omnia.

637. *Pusillanimis* ex adverso intumescit rebus secundis, despondet animum in adversis; percellitur ad inopina, & contremescit, & nescit quò

634. *It hath bin discours'd how we must beware, lest things enticing us with delight, lead us aside from the way of virtues: it followeth, how we are to order our selves, that those things draw us not away, which affright us with difficulties, dangers, adversities.*

635. *In this case there is need of the courage of the mind: which may conquer every thing by æquanimity, magnanimity, and patience.*

636. *He is an even-minded person, who disposeth himself indifferently to every event, that is, neither is puffed up with things prosperous, nor sinks under crosses: a magnanimous person is not daunted at sudden chances, in which he seeleth himself and his purpose to be in danger, but seeketh out a way either discreetly to avoid them; or if he perceives them unavoidable, to break thorough them undauntedly: a patient person, doth stoutly endure the evil, which he could not get out of, nor yet therefore straying out of the path of duty, is hardened against all things.*

637. *A faint-hearted person on the contrary doth look big in prosperity; grows heartless in trouble; at things unexspectèd he is appaied, and quaketh, and knoweth not which way*
se

se vertat, effœminatè trepidus ad quemvis strepitum: obrutus verò calamitate, intolerabile deputat, implensq; omnia querimoniis, indecenter plorat, ejulat, lamentatur, ægrimoniâ se emaciat, & sic sua impatientiâ ærumnas sibi conduplicans succumbit.

638. Stultè tamen audaculi, defugientes notam pusillanimitatis, audacter se offerunt ad negotia ardua, quibus impares sunt, fretique temeritate provocant pericula, quæ possent evitari, nec relinquunt aliquid inausum: unde ut fit recedant confusi, vix postea mutire, vel hiscere ausi.

639. Inter fortem igitur, ignavum & temerarium, quid interest? Ille vocationis suæ munia agit, iste deserit, hic inardescit alienis: ille agit res sollicitè, iste secorditer, hic præcipitanter: ille sedulo, iste remisè, hic perfunctoriè: ille quietè, iste oscitanter, hic tumultuariè: ille nihil cunctando, iste omnia procrastinando, hic defultoriè negotia pervagando: ille denique nullibi non viget, iste nullibi non friget, hic nullibi non variat; jam restitans, jam resul-

to turn himself, at every little noise trembling like a woman; but being overwhelmed with calamity, thinks it unsufferable, and filling all places with complaints, unbecomingly bewails himself, howls, laments, makes himself lean with grief, and thus by his impatience doubling his sorrows, sinks under them.

638. Yet fool-hardy braggards shunning the mark of cowardise, boldly offer themselves to difficult affairs, which they are not fit for, and trusting to their own rashness, despise dangers, which might be avoided, nor leave they any thing unassayed: whence it happeneth that they retreat in disorder, scarce daring afterwards to mutter or squetch.

639. What then is the difference between a valiant man, and a coward, and a rash fellow? The one performeth the duties of his calling, the other forsaketh them; the third busies himself with other mens occasions: the first doth his things carefully, the other slothfully, the last hastily: the one diligently, the other faintly, the third slubberingly: one quietly, & other drowsily, this disorderly: the one making no delay, the other putting off every thing from day to day, the last running over businesses as 'twere by skips. To conclude, the first lively upon all occasions, the second upon all occasions cold, the third shuffles and
rans,

tans, intermissâque resumens. *and cuts in every business, one while standing still, another while recoiling, and taking up things again that he had left off.*

640. Tu, si (confusus Deo) fueris ad honesta impiger, ad obstacula impavidus (impe-
territus,) & ad tristitia acci-
dentia infractus, ubique per-
viceris.

640. *Thou if (trusting to God) thou art quick to things honest, un-
daunted at obstructions, not dismay'd
at sad accidents, wilt in every bu-
siness get the better.*

C A P. LXVI.

H U M A N I T A S.

Humanity, or courtesie.

641. Nemo nostrum nascitur
sibi uni, necessitas cohabitandi
consociat omnes trinâ lege;
quâ quisque obligatur 1. læ-
dere neminem, 2. tribuere suum
cuique, 3. prodesse insuper, cui-
cui datur.

641. *None of us is born for him-
self alone, the necessity of living with
one another joyneth all men together
with a treble law; whereby every one
is bound 1. to hurt no body, 2. to
give every one his own, 3. besides
to do good to whomsoever he
may.*

642. Perpetraveris tria
hæc, si dederis operam 1. hu-
manitati, nè quem offendas,
aut contristes: 2. justitiæ;
nè cui injuriosè facias: 3. be-
nignitati, ut afficias beneficiis
quem potes.

642. *Thou wilt perform these
three things, if thou apply thy self 1.
to humanity, that thou mayst hurt
no body, or grieve him; 2. to ju-
stice, that thou do injuriously by no
man: 3. to kindness, that thou do
courtesies to any one to whom you can.*

643. Evitationi offensio-
num serviet, ut serves erga o-
mnes, modestiam, affabilitatem,
candorem, veracitatem, urbanita-
tem concordiam, mansuetudinem.

643. *It will serve to the avoid-
ing of offences, that thou use towards
all modesty, affability, candour,
truth, urbanity, concord, mild-
ness.*

644. Modestus eris, si fue-
ris humilis, non arrogans; ve-
recundus, non procax; comis,
non morosus, aut torvus; taci-

644. *Thou shalt be modest, if
thou be humble, not haughty; shame-
fac'd, not saucy; courteous, not fro-
ward or sullen: rather silent then*

turnus

turnus potiùs, quam loquax;
severus potiùs, quàm frivo-
lus: (nam ingrátus est gat-
rulus nugator, qui non vere-
tur facta infecta loqui; & bla-
terans aniles ineptias blate-
ro; & effutiens arcana sibi
concredita futilis locutulei-
us; & qui solent interloqui
importunè; tu ergo, ubi lo-
qui non est necesse, tace; si-
lentii nulla pœnitudo.

645. Magis autem cave, nè
quem contemnas, nè cui ad-
versere sine causa, aut convi-
tieris, & inferas contumeli-
am, vel faceffas molestiam, aut
carpas cum præsumtione, vel
diffames, traducas; seu cavil-
lando præsentem, seu calum-
niando absentem (calumniæ
recidunt in calumniatorem:)
parcè lauda, parcìus vitupera.

646. Si quid inaudivisti,
quod abscondi debet, nè di-
vulga, abstrude potiùs quàm
obtrude: quod tibi certò non
constat, nè affirma aut nega;
nedum ut asseveres, aut infi-
cieris: contra, si quid dispa-
lescit rumore, aut alius quis
narrat, suadet, dissuadet, ad-
hortatur, vel dehortatur, nè
repugna præfractè, aut cor-
tende obstinatè; nam æquè dif-
fidentia, atque credulitas, est

talkative; rather severe, then trifling;
(for a prattling trifler is displeasing,
who is not afraid to speak of things
done or undone, and a babler taling
old women's tales; and a silly prate-
ler, uttering secrets trusted to him;
and those who are wont unseasonably
to interrupt: do you therefore, where
is no need of speaking, hold your
peace: there is no repenting of
silence.

645. But beware more, that you
despise no man, or cross any one with-
out a cause, or reproach him, and
lay a slander on him, or trouble him,
or presumptuously find fault with
him, or defame and traduce him; ei-
ther by scoffing at him to his face, or
backbiting him behind his back (slan-
ders fall back upon the slanderer:)
praise sparingly, but dispraise more
sparingly.

646. If you have over-heard any
thing which ought to have been con-
cealed, don't divulge it, keep it close
rather then throw't abroad; what you
are not sure of, neither affirm nor de-
ny, muchless assert, or contradict: on
the other side, if any thing is nois'd
abroad, or any other man relateth,
perswadeth, dissuadeth, exhorteth,
or dehorteth, do not stubbornly oppose
it, or obstinately contend: for dis-
trust is as much hurtfull as credulity,

detrimentosa, omnisque audacia contradicendi exosa.

647. *Affabilis eris, si cum quolibet bono (nobili & ignobili) conversari non dedigneris: & quemcumque adis, aut præteris, aut obvium habes, amanter salutes; salutantem comiter resalutes; discedentem à te comiteris aliquo usque, compellanti te, vel interroganti aliquid, respondes placidè, annuendo saltem, vel abnuendo: ita omnibus poteris esse amicus, etiam si non omnibus familiaris.*

648. *Exhibe te candidum erga quemlibet, quicum tibi versandum est, citra vafritiem & versutiam: nihil mali faciliè suspicare, nullius mali alium insimula: si quid amicus deliquit, citra amarorem mone, corripe, corrige; sis alienus à dolo & suspicione, æquè ut à simulatione: dic candidè quod res est, assentationes relinque hypocritis: adulator simulat candorem palpo & offuciis: ore amicus, re fraudulentus insidiator, versipellisque veterator.*

649. *Verax ut habearis accura: quod obtinebis mentiendo nunquam, nihil affingendo cuiquam, nihil promitten-*

and all boldness of gain-saying is hurtfull.

647. *Thou wilt be affable, if thou disdain not to converse with every good man (noble or ignoble:) and whomsoever you go to, or pass by, or meet, salute him lovingly; kindly salute again him that salutes you; one that is departing from you, accompany him a little way, if one speak to you, or ask you any question, answer him civilly, by nodding forward at least or backward: by this means you may be a friend to all, although not familiar to all.*

648. *Show thy self courteous towards every one, with whom thou art to converse, without sly tricks and craftiness: do not easily suspect any ill, accuse another of no evil: if thy friend hath done any offence, admonish him; correct him without bitterness: be a stranger to deceit and suspicion, all one as to unreasonable disssembling: speak clearly what the thing is, leave coggling and fawning to hypocrites: a flatterer counterfeits a plain-heartedness by his soothing & colloquings: in word a friend, in deed a deceitfull beguiler, and a turncoat [arrant cheat.]*

649. *Take care that thou mayst be accounted true: which thou wilt obtain if thou never tell lye, if thou devise nothing upon any one: if thou*

de verbotenus, non jurando facile; si autem jurasti juramentum servando: mendax enim (& qui dejerat ac pejerat) habet hanc pœnam perjurii, ut tandem amplius non credatur, nec jurato, nec juranti: mendaces verò qui mendacia comminiscuntur, detestamur.

promise nothing only from the teeth outward, if thou do not swear easily; but if thou hast sworn, keep thy oath; for a liar (and he who sweareth and forsweareth) hath this punishment of his perjury, that at length he is no more believed, neither without swearing nor with it; but we detest liars, who make lyes on their own heads.

650. *Urbanus* ut sis, vide ubique quid te deceat, & deceat: compone te ad elegantiam, fuge rusticitatem: inter mœstos mœre, inter hilares hilaresce; inter jocantes etiam exorna dicta & facta tua facetis leporibus, festivisque jocos: (*tetricus* est; qui nec ipse potest proferre liberales jocos, nec ferre jocationes aliorum.)

650. That you may be civil, see every where what becometh you, and what misbecometh you: compose yourself to handsomness, avoid clownery; amongst the sorrowfull be sad, amongst the merry be cheerfull; amongst jesting persons adorn also your words and deeds with witty drolls, & pleasant jests: (he is ill-natur'd, who can neither of himself utter handsom jests, nor abide the jestings of others.)

651. Cavebis tamen esse protervè dicax; & laceßere alios scommatibus & dictetis, & arridere ineptè omnibus, vel cachinnari inficetè, morionum ritu; sed subridendo & renidendo blandulè contestaberis civilitatem: derisor deridet alios stolidè; scurra scurratur ffordidè: sannio, quem contemptim habet, ei exhibet despicient-

651. Yet you must beware of being saucily talkative, and reviling others with scoffs and jeers; and foolishly laughing at every body, or unhand¬somly giggling after the manner of fools; but you shall shew your civility by simpering and smiling prettily: a scorner laughs at others simply; a scoffer mocks at others basely [naustily;] a buffoon sets at naught and makes a laughing-stock of him, pouching out his lips, or lolling out

tiam & ludibria, distortis labris, vel exsertâ linguâ, aut digitis in ciconiam formatis; aut nudatione natium; aliisque generibus sanarum.

652. *Concors* ut dicaris, vive tranquillè cum victoribus, contubernalibus, concivibus, contreraneis; æmulare nemini successus fortunatos, potiùs congratari: nè sinas inveterascere subortas simultates, nè transeant in odium & inimicitias: rixosum est, contendere, altercari, vivere in jugi discordia; querulorum, quiritari, & semper de aliquo conqueri.

653. *Mansuetus* fueris, si nec sis irritabilis, nec inexorabilis: non afferescens in iram, sed eam cohibens; non retalians injurias, sed sufficiens. *Læsit* te quis? utere conniventia, & pudefacias illum: si poenitet fecisse, da veniam, ignosce & condona culpam; si offendisti ipse, nè pudeat agnoscere offensam, offensum verò affari & deprecari, non simulatè, sed ex animo: tibi devin-xeris omnes oppidò.

654. At *iracundus*, & sui impos, excandescens illico, &

his tongue, or setting his fingers like a stork's bill, or turning up his breech; and with other kind of tricks.

652. That you may be said to be peaceable, live quietly with those that live with you, with your chamber-fellows, fellow-citizens, countrey-men; envy no man's good success, rather congratulate: do not suffer grudges risen up to grow old, lest they pass into hatred and enmities; it is the property of brawlers to contend, to wrangle, to live in daily discord [strife;] of whiners, to whine, and alwayes be complaining of some body.

653. You will be gentle, if you be neither easie to be provoked, nor hard to be intreated: not boiling over into anger, but keeping it in; not requiting injuries, but bearing them: has any one hurt [offended] you? wink at it for a while, and you will shame him: if he repent of what he has done, forgive him, excuse and pardon his fault; if thou hast thy self offended, do not be ashamed to acknowledge thy offence, and to speak to the party offended, and beg his pardon, not counterfeitedly, but from thy heart: by this means thou wilt very much oblige every body.

654. But the angry and passionate person, that presently grows into a frenzied,

fremens, furens, militans, maledicens, imprecans diras, criminantē recriminans, verberantem reverberans, quid proficit? perturbat res magis, & exasperat alios ad bestialem sævitiā, quæ vix reprimi possit, ut homicidia ostendunt: sed apage furias ejusmodi.

655. Generosus animus est compos sui, tametsi indignatur indignè factis, & obloquitur malevolis, non tamen stomachatur; infensus est alicui, sed non infestus: mavult esse mitis, quàm trux; benignus, quàm dirus; pacare omnes, irritare neminem; atque ita concordare cum omnibus, discordare adversus neminem.

beat and blusters, raging, threatening, giving ill words, cursing, and banning, reproaching him again that reproaches, beating him again that strikes, what good doth he do? he disturbeth things the more, and sets on others to a brutish cruelty, which can hardly be quell'd, as manslaughters make appear: but away with such madneses as these.

655. A generous mind has the government of it self, although he cannot endure unworthy actions, and so speaketh against those that wish him ill, yet he doth not bear a grudge; he is displeased with one, but is not mischievous; he had rather be mild, then outrageous; courteous, then spitefull; to appease all, anger none; and by this means agree with every body, disagree with nobody.

C A P. LXVII.

J U S T I T I A.

J U S T I C E.

656. Sociatæ actiones hominum consistunt potissimum in commutandis rebus; & distribuendis inter personas officiis, præmiis & pœnis: utrobique directrix est justitia commutativa & distributiva, observatrix competentis (seu congruentis) inter rem & rem, personam & personam.

657. Justus igitur non vel-

356. The sociable acts of men consist chiefly in exchanging things, and in distributing offices, rewards, and punishments, amongst persons: on both sides the governess is justice commutative and distributive, the observer of the fitness (or congruity) between thing and thing, person and person.

657. A just man therefore chal-

dicat sibi quod alterius est, nec usurpat insciente illo: quod habet apud se depositum, reddat fideliter, non abnegat, multò minùs abjurat: fraudare enim est æquè scelestum ac furari.

658. Quod commodato accepit, idem redhibet, non aliud; & quidem, quoad fieri potest, citra damnum: pro eo verò quod est mutuatitium (mutuò datum) restituit quidem aliud, paris tamen æstimii.

659. Si quis à te mutuat, ei mutua; maximè si stipulanti adstipulatus es: postula tamen chirographum, aut pignus, vel hypothecam, aut aliam cautionem; quia opus est cautelâ ob mortalitatem, & lubricam fidem hominum.

660. Cùm debitum exsolvitur, expunge nomen debitoris, tradèque illi apocham, qua testeris esse tibi solutum, & te accepisse solutionem; aut trade acceptilationem, qua testificeris tibi esse satisfactum, quocunque inter vos convenit modo.

661. Injurius est sibi ipsi, qui se obruit alieno ære, ut tandem cogatur cedere bona sua creditori: aliis verò (in-

lengeth not that which is anothers, nor taketh it up without his knowledge: that which is left in his charge, he faithfully restoreth [giveth back,] he doth not deny it, much less forswear it: for cheating [cozening] is even as bad as stealing.

658. What he hath borrowed, he restores the same thing, not another; and truly, as much as may be, without loss [damage:] but for that which is borrowed on loan [lent] he sends back some other thing indeed, but of equal worth [value.]

659. If any one borroweth of thee, lend him; especially if you have promised him that requesteth: yet without all demand a bill of his hand, or a pawn [pledge,] or a surety, or some other security: because by reason of the uncertainty of mans life, and the slipperiness of their credit, we have need of assurance.

660. When the debt is paid, strike out the debtor's name, and deliver him up an acquittance, whereby you may witness that you have been paid, and that you have received the payment; or deliver him a discharge whereby you may testify that you are satisfied, some way or other that you have agreed betwixt you.

661. He is injurious to himself, who runs himself so deep into debt, that at last he is forced to give up his goods to the creditor: but (he is
juriosus

juriosus est) qui exigit (fœn-
ratoris more) illicita fœnora
supra sortem: sed qui paupe-
rat debitorem anatocismis (id
est, usura ex usura,) nequis-
simus usurarius est.

662. Breviter: age justè,
appete nihil alieni, sta firmi-
ter tuis promissis & pactis (si-
ve ultro quidpiam condixisti,
aut transegesti cum quopiam,
sive exoratus, & quibuscunq;
conditionibus, aut exceptio-
nibus:) neque da ansam cui-
quam exostulandi tecum.

663. Jam in dispensandis
bonis serva itidem æqualita-
tem: collauda, commenda,
promove, laudabiliter agen-
tes; reprehende, objurga,
floccipende illaudabiles: mi-
serescce delinquentium insci-
enter, aut præter voluntatem,
imputaque errores imperitiæ,
nec exproba rigidè, aut im-
propere: sed facinorosis suâ
sponte succense, eos verò qui
peccant alieno instinctu, vel
impulsu, non excusa omnino.

664. Pro impetrando benefi-
cio, nè pigeat petere obnixè,
aut etiam supplicare submis-
sè: (superbus enim mendicus
nihil emendicat; importu-
nus flagitator est odiosus, nihil
obtinèt:;) si petitum justa de

more injurious) who exacts of others
(after the manner of an usurer) un-
lawfull use beyond the principal: but
he who impoverishes his debtor with
use upon use, is the most villanous
usurer.

662. In short, act justly, covet
nothing which is anothers, stand firm-
ly to your promises and covenants,
(whether you have voluntarily en-
gag'd, or dealt with some body, ei-
ther by entreaty, or upon what con-
ditions or exceptions whatsoever:
neither give an occasion to any of
quarrelling with you.

663. Now in the bestowing of good
things keep also an equality; praise,
commend, advance those that do wor-
thily; reprove, rebuke, slight those
that do unworthily: pity those that
offend unwittingly, or against their
will, and impute their errors to their
simpleness, and do not upbraid them
rigorously, or be hasty with them: but
be angry with those that are wicked
on set purpose; & those who sin by an-
others setting on or persuasion, do
not altogether excuse.

664. For the obtaining of a cour-
tesie let it not ink you to entreat ear-
nestly, or also humbly to petition:
(for a surly beggar getteth nothing by
begging, an importunate asker is hate-
full, and obtineeth nothing:) if the
thing asked for be deny'd upon good

causa negatur, nè obrunde, nè admurmura, nè maledic.

665. Si adsunt *competitores beneficii*, da digniori majus, indigniori minus: pro beneficiis, in te collatis abs quovis, declara gratitudinem, quod fiet, benefactum agnoscendo, de prædicando, pensando, redhostiando; aut saltem agendo gratias, si non liceat referre: munera enim remunerari, & esse munem, sæpenumero haud licet.

666. Quod si quis tibi aliquid largiatur non rogatus, haud respue pertinaciter, nè videaris aspernati, tibi que ingratitudo objectetur.

reason, [*just cause*] do not trouble him, do not murmur [*grumble,*] do not rail.

665. If there be competitors for a courtesie, give the greater to the more worthy, the lesse to the lesse worthy: for courtesies bestowed on you by any one, declare your thankfulness, by acknowledging the good tura, speaking of it, requiting it; or at least by giving thanks, if you may not make amends; for to requite good turns [for which one is oblig'd] and to be oblig'd, oftentimes cannot be.

666. If any one unrequested bestoweth on thee any thing, do not refuse it obstinately, lest you seem to scorn it, and you be upbraided with ingratitude.

C A P. LXVIII.

B E N I G N I T A S.

667. Non satis est viro frugi, qbesse nemini: quærit prodesse cuicuj potest, præstatione gratuitorum officiorum.

668. Quare tu, si quis indiget consilio, consule; si solatio, solare; si subsidio, subveni; si ope, opitulare; si patrocinio, patrocinare: suggerere aliquid nescienti, si tibi succurrat; cum, qui te opperitur, nè morator; & cuicumq; potes gratificari ul. a re, nè

Benignity, or kindness.

667. It is not enough for an honest man to hurt no-body: he endeavours to do good to every one he can, by the performance of freely-bestowed civilities.

668. Wherefore you, if any one need advice, counsel him; if comfort, comfort him; if aid, assist him; if help, help him; if patronage, patronize him: prompt him that is ignorant of any thing, if it comes in your mind; do not make him stay, that tarryes for you: and whomsoever you can do a courtesie to in any thing, do not
gravator

gravator; sic demereberis gratiam: inofficiosi est velle togari, aut expectari.

669. Dives es? esto igitur erga amicos *munificus*, strenis & donariis; erga peregrinos *hospitalis*; erga pauperes *liberalis*; (etiam si pecuniosus non sis, imperti tamen etiam de modico; si non largiter, at liberaliter:) erga miseros, sis *misericors*, non irridendo infortunium eorum, sed commiserando; & sic non addendo afflictionem afflictis, sed adimendo.

670. Si præterea fueris obsequiosus erga superiores, officiosus erga pares; lenis & placidus erga inferiores; parabis tibi amicitias veras, nec eris contemptui aliis, ut solent fastuosi, tumidi, parasiti; quin & ofores ipsos tibi conciliabis.

grudge to do it; thus you shall oblige people: it is the part of an uncivil person to desire or look to be entreated

669. Art thou rich? be then bountifull to your friends, with new-years-gifts and presents; to strangers [foreigners] hospitable; to poor folks liberal; (and although you be not full of money, yet bestow something out of that little you have, though not largely, yet freely:) towards those in miserie be mercifull, not by scoffing at their misfortune, but by pitying it; and so not by adding affliction to the afflicted, but by ridding them of it.

670. If further you be serviceable to your superiours; civil to your equals; gentle and pleasant to your inferiours; you will purchase your self true friendships, nor will you be contemptible to others, as haughty ones, proud ones, parasites are wont to be: nay more then that, you will make your very haters your friends,

C A P. L X I X.

P I E T A S.

Piety, or Godliness.

671. Super omnia verò obversetur tibi ubique Ille, qui super omnia est, & à cujus solius gratia tibi, & rebus tuis, benedictio, ab indignatione verò maledictio & interitus, venire possunt: hunc tu unice reverere, summè deama, per-

671. But above all things let him be every where in your thoughts, who is above all things, and from whose goodness alone a blessing can come to you and your affairs; but from his indignation a curse and ruine: him do you reverence alone, love him entirely, call upon him perpetually, in

peru

petuò invoca, in ejus conspe-
ctu nunquam & nusquam pec-
ca, omnia tua illi fidenter cre-
de: nã ille te pulcrè beabit.

his sight at no time and in no place
sin, trust all your concerns to him with
confidence; truly he will bestow on
thee a fair blessing.

C A P. L X X.

C O N S T A N T I A.

672. Licet nostra integri-
tas imperfecta sit, tu tamen ut
tibi compares habitum omni-
modæ probitatis, coadde coro-
nidem, constantiam, cum vir-
tutum plenitudine & sincerita-
tate.

673. Plenitudo requirit,
ut velis nullam virtutem tibi
abesse, quæ te possit honesta-
re & integrare, ullo statu aut
gradu ætatis vel conditionis
tuæ: ut nimirum ornet te ado-
lescentem modestia, taciturnitas,
auscultatio, agilitas, mundities;
juvenem verecundia, castitas, im-
pigritas, obsequentia, fidelitas;
virum, operositas, & prudentia;
senem, gravitas, sapientia, mor-
tis prospectatio & despectatio.

674. Sinceritas vult, ut ni-
hil agas affectatè, simulatè, ap-
parenter, dicis causâ; omnia
sincerè, ex vero, & bona fide;
ut etiam ineustoditus incon-
taminatus sis, & inculpatus:
id quod ut fiat, & tu sis pro-
ximior consummationi, esto
conscientiosus, quicquid vi-

C O N S T A N C Y.

672. Although our integrity be
imperfect, you nevertheless that you
may get to your self an habit of all
sort of honesty, add for the top-
stone, Constancy, with the compleat-
ness and sincerity of virtues.

673. Compleateness requires, that
you would have no virtue wanting to
you, which may make you handsome
and entire in any state or degree of
your age or condition: to wit, that
in your child-hood modesty, si-
lence, observance, quickness,
cleanliness may adorn you; in
your youth bashfulness, chastity,
diligence, dutifulness; in your
man-hood, painfulness and dis-
cretion; in your old age, gravity,
wisdom, the foresight and con-
tempt of death.

674. Sincerity requires that you
do nothing affectedly, dissemblingly,
appearingly, for say sake, every thing
sincerely from truth, and in good
earnest; that also being not lookt after
you keep your self undefiled, and un-
blameable: whith that it may come
to pass, and you may be nigher to per-
fection, be conscientious; what so ever
des

des fieri oportere, (etiam minimum.) cave unquam sciens volens prætermittas.

675. *Constantia* deposcit, ut in tam excellenti proposito persistas immotè, etiam si quis tentat labefactare te; paratior mori, quam spurcari, & amittere decus tuum: si quis tamen meliora ostendat, noli esse pervicax; satius est regredi, quàm malè progredi.

676. Vides, quàm penès te sit, *felicem esse*, si sic perseveres? præstina igitur asserere te Deo, & tibi! ut sis in potestate tua, nec volvaris aut rapteris alieno prolubio; utque tibi benè conscius in omnibus, perman eas illæsus & indemnis, exultésque continenter.

you see ought to be done, (even the very least thing) take heed you never knowingly or willingly let it slip.

675. *Constancy* requireth, that you persist immoveably in so excellent a resolve, although many one should try to give you the fall; more ready to die, than to be tainted, and to lose thy reputation: nevertheless if any one shew you better things, be not stubborn [self-will'd;] it is better to go back, than to go forwards amiss.

676. Do you see, how it is in your own power to be happy, if you hold on thus? therefore make great hast to rescue your self to God, and to your self! that you may be in your own power, and not be tumbled or hurried up and down at anothers pleasure: and that having a good conscience in all things, you may remain without hurt or damage, and continually rejoyce.

C A P. L X X I.

Artes sermonis: primumque lexicon, & grammatica.

677. Hucusque spectata posunt peragi silendo: quia verò facti sumus ad socialitatem, & opus est fermocinari, artes quoque fermocinatrices (appendicula philosophiæ) coluntur; *lexica & grammatica, rhetorica & oratoria; poësis & musica.*

678. *Lexica sunt reperto-*

The arts of speech: and first, lexicon and grammar.

677. The things hitherto consider'd may be perform'd in silence: but because we are made for sociableness, and there is need of speaking, the discoursing arts (being a little appendage of philosophy) are also practis'd; lexicon and grammar, rhetorick and oratorie, poetrie and musick.

678. Lexicons are the invento-
ria

ria vocum: quorum exorsus videtur esse à *vocabulariis*, ubi vocabula congeruntur quovis modo: hinc ventum ad pleniora *dictionaria*; ubi digeruntur alphabetico ordine; si continuo, ad celerem inventionem, *promptuarium* dices; si reducendo compositas voces ad simplices, & derivatas ad primitivas, cum eruta originatione, *lexicon* vocabis; quod tantò fabrius erit, quantò plenior collectio vocabulorum ibi fuerit, ut reperiās quicquid quæris; & amussitator collocatio, ut suo loco reperiās; & dilucidior explicatio, ut legenti ultrò dilucescant.

679. *Grammaticus* commendatur quomodo rectè fiant ex litteris syllabæ, è syllabis voces, è conjunctis vocibus phrasæ & sententiæ, & ex his periodi, sermonisque contextus; ut admittantur *barbarismi* aut *solæcismi* juxta *idiotismos* cujuscunque linguae, *analogiam*; & *anomaliam* (quippe quædam formantur regulariter, alia irregulariter:) habes *grammaticæ* epitomen; *systēma* stat suo loco,

ries of words: whose beginning seems to be from word-books, where words are heap'd together after any manner: hence they came to fuller dictionaries; where they are digested into an alphabetical order; if all along, for a speedy finding out, you call it a store-house; if by reducing the words compound to the simples, and those derived to the primitives, with the original starched out, you shall term it a lexicon: which will be so much the better compos'd, by how much there is a fuller collection of words, that you may meet with whatsoever your look for, and a more exact placing of them, that you may find them in their own place, and a more clear explication of them, that they may shine forth of themselves to the reader.

679. *A grammarian considereth how syllables may rightly be made of letters, words of syllables, phrases and sentences of words joyned together, and of these periods, and a context of speech; that barbarisms, or solæcisms be not admitted; according to the proprieties of every language, their analogy and anomaly, (for some words are formed regularly, others irregularly:) you have an abstract of grammar; the systeme stands in it's own place.*

CAP. LXXII.

Rhetorica & oratoria.

680. Ut sermo sit non tantum intelligibilis, sed etiam suaviter delectabilis, & acutè penetrabilis, rhetor colorat verba tropis, sententias figuris, pronuntiationem gestibus.

681. Tropus est, cum vox transfertur à nativa significatione ad significandum rem aliam, similem aut contrariam, aut saltem diversam.

682. Cum enim *stupidum* voco *stipitem*, vel *asinum*, est *metaphora*; quâ res similis appellatur nomine rei similis: *bone vir*, pro *nequam*, est *Ironia*: quâ res nomine rei contrariæ joculariter insignitur: *homo est lutum*, est *metonymia*: quâ causa ponitur pro effectu, & vice versâ: *homo est mortalis*, *synecdoche*; quâ pars pro toto sumitur & contrâ.

683. Accedunt tropis, *allegoria*, *hyperbole*, *miösis*; simpliciori exornationi verborum, *epitheta*, *antitheta*, *synonima*, *periphrasis*.

684. *Mali corvi malum ovum* (id est, improbi patris, improbus filius) est *allegoria*; quâ semel positus tropus continuatur: *homo homini deus*, est *hyperbole*, quâ res ultra verum

Rhetorick and Oratorie.

680. That speech may be not only intelligible, but also pleasingly delightful, and sharply piercing, the rhetorician colours words with tropes, sentences with figures, pronuntiation[utterance] with gestures.

681. A trope is when a word is translated from it's natural signification, to signifie some other thing like or contrary, or at least different.

682. For when I call a dunce a block or ass, it is a metaphor; whereby one like thing is called by the name of another like thing: O good sir, for O rogue, is an Ironie: whereby a thing is sportingly set forth by name of a contrary thing: man is clay, is a metonymie: whereby the cause is put for the effect, and on the contrary: man is mortal; a synecdoche, whereby a part is taken for the whole, or contrariwise.

683. To tropes belong allegorie, hyperbole, miösis: to the more simple adorning of words, epithets, antithets, synonymaes, periphrasis.

684. An evil crow hath an evil egg (that is, a wicked father hath a wicked son) is an allegory; in which the trope once put is continued: man to man is a God, is an hyperbole, by which the thing is raised beyond truth: man is a shadow, a miösis,

extol-

extollitur: homo est umbra, *missis*, quâ res infra verum extenuatur ac minuitur.

685. *Eloquens orator*, eloquitur potenter; epitheta sunt, quæ nominibus & verbis ornatus causâ adjiciuntur, non loquitur sed fulminat, non commouet sed dejicit; sunt antitheta, quibus plus quiddam dicere videmur, quam dicimus: sollicitat, suadet, persuadet, captivat, perducit, quo vult; sunt synonyma, ideo adhibita ut velut iterato ictu idem adigatur fortius, & hæreat firmitus: *Romana eloquentia parens* (pro Cicero;) est paraphrasis, quâ rem non nominamus, sed circumloquimur.

686. Cum autem mutamus modum efferendi sententias, à simplici in elegantem, cognominant *figuram*; siue quidem variando totam sententiam, *emphaseos causâ*; siue collocando ejus partes quasdam lepidè inter se suauitatis ergo; ibi dicuntur *figuræ sententiæ*; hic, *figuræ dictionis*.

687. *Figuræ sententiæ* sunt octo præsigniores; 1. *O tempora, O mores!* est exclamatio, qua sermo intenditur exclamando. 2. *Siccine fieri oportuit?* est interrogatio, qua au-

by which the thing is shrank and lessened below truth.

685. An eloquent orator speaketh powerfully; are epithets, which for ornament sake are added to nouns and verbs: he doth not speak, but thunders, he doth not move, but throws down; are antithetaes, wherein we seem to say something more, than we do say: he soliciteth, adviseth, perswadeth, captivateth, leadeth whither he will, are synonymaes, therefore made use of, that with a doubled stroke as it were the same thing may be set home more strongly, and stick more fast: the parent of Roman eloquence (for Cicero;) is a paraphrasis, wherein we do not name the thing, but speak it about.

686. But when we change the manner of speaking sentences, from the plain way to a neat one, they term it a figure; and that whether by varying the whole sentence, for emphasis sake; or by placing some of it's parts handsomely together for sweetness sake; there they are call'd figures of a sentence; here, figures of a single word.

687. The more noted figures of a sentence are eight; 1. O times! O manners! is an exclamation, whereby the speech is heightened by exclaiming. 2. Ought it so to be done? is an interrogation, whereby by asking
ditorem

ditorem interrogando ad attentionem concitamus. 3. *Sed de his tacebo*; est reticentia, qua sermo redditur aculeatior ipsa abruptione. 4. *Tacebo ? imo loquar*; est correctio, qua revoco quiddam jam dictum, ut dicendum excipiat attentius. 5. *Dicat aliquis, &c. sed regero*; est præoccupatio, qua auditoris compellatio præoccupatur. 6. *Sit inops, sit humilis ortu, at est probus*; concessio, qua conceditur, quod oggeri posset, ut auditor concedere cogatur aliud. 7. *Audite celi, vos mihi eritis testes*, est apostrophe (aversio,) qua sermo ab auditoribus alioversum convertitur. 8. *Non in hoc lucco ego Sol, ut vos somnolenti altum stertatis*; est prosopopœia, personæ loquentis fictio: omnia hæc ad exciendam intentionem.

688. Inter figuras dictionis antecellunt totidem. 1. *Vicimus, vicimus*; est epizeuxis, iteratio continua. 2. *Nobis id cedit solatio, nobis honori, nobis utilitati*; anaphora, repetitio in principio sententiarum. 3. *Ibimus, pugnabi-*

we stir up the hearer to attention. 3. But concerning these things I will hold my peace, is a reticence, whereby the speech is made more sharp by the very breaking of it off. 4. Shall I hold my peace ? nay I'll speak; is a correction, whereby I call back something already said, that that which is to be said may be entertained more attentively. 5. Some one may say, &c. but I answer; is a preoccupation, whereby the interruption of the hearer is forestall'd. 6. Let him be poor, let him be of a low parentage, yet he is honest; a concession; whereby that is granted, which might be suggested, that the hearer may be compell'd to grant another thing. 7. Hear O heavens, ye shall be my witnesses; is an apostrophe (aversion,) whereby the speech is turned from the hearers to some other thing. 8. I Sun shine not for this, that you being drowsie, should snore soundly; is a prosopopœia, the dissembling of a person speaking; all these for to stir up attention.

688. Among the figures of speech as many do excel. 1. We have won the day, we have won the day; is an epizeuxis, an immediate going over the same words again. 2. That proves to our comfort, to our honour, to our profit; an anaphora, a repetition in the beginning of sentences. 3.

mus,

mus, triumphabimus, epistrophe ejusdem soni in fine geminatio. 4. *Multa promittis, præstare teneberis multa; epanalepsis est, congemination in principio & fine.* 5. *Causa bona addat nobis animum, animus industriam, industria, virtutem; climax est, connexio plurium gradata.* 6. *Non vivo, ut edam, sed edo ut vivam; est epanodos, inversa conduplicatio.* 7. *Quæ nocent, docent; paranomasia, allusio soni ad sonum, & rei ad rem.* 8. *Memorem facit immemorem, qui memorat quod ille meminit; polyptoton, repetitio ejusdem vocis, variato casu.*

689. Sunt & accessoria ornamenta sermonis, *gnomæ, adagia, apophthegmata, parabolæ, apologi, comparationes, & exempla*: è quibus omnibus fit *tersus sermo*, si res enunciantur *purè & emendatè*; *floridus*, si tropicè & figuratè; *nervosus*, si strictim ac sententiosè.

690. Observa & diversitatem stili, qui brevis & argutus dicitur *Laconicus*; copiosus & diffusus, *Asiaticus*; rebus exactè attemperatus, *Atticus*:

We will go on, we will fight on; we triumph on; an epistrophe, the doubling of the same sound at the end. 4. Much you promise, you will be bound to perform much; is an epanalepsis, a doubling both at beginning and end. 5. Let a good cause put courage in us, courage industry, industry valour; is a climax, a gradual connexion of several things. 6. I do not live to eat, but I eat to live; is an epanodos, a redoubling backwards. 7. Destructions are instructions; a paranomasia, an allusion of sound to sound, and of thing to thing. 8. He maketh one that is mindfull unmindfull, who minds him of that which he had in's mind; a polyptoton, a repetition of the same word, varying the case.

689. There are also accessory ornaments of speech, sentences, proverbs, apophthegms, parables, apologues [*fables*,] comparisons, and examples; out of all which, discourse is made neat and trim, if things be express'd purely and correctly; florid and gawdy, if with tropes and figures; pithy and sinewy, if smartly and sententious.

690. Observe also the diversity of style, which being short and witty, is call'd Laconick; copious and large, Asiatick; fitted accurately to the subject, Attick: the character of style

chara-

character styli itidem triplex est: *humilis*, in efferendis rebus quotidianis; *sublimis*, seu grandis, in rebus arduis; & *mediocris*, in mediocribus.

in like manner is threefold; low in speaking of ordinary matters; high, or great, in lofty things; and indifferent, in things mean.

691. Hinc orator pertractaturus aliquod thema oratorie, reducit illud primo ad cerum statum, quem facit triplicem; *demonstrativum*, quo fiunt rerum laudationes & vituperationes; *deliberativum*, quo suasiones & dissuasiones; & *judiciallem*, quo absolvuntur accusationes & defensiones.

691. Hence an orator about to handle [treat of] any subject in oratory, bringeth it first to a certain state, which he makes threefold; demonstrative, wherein praises and dispraises of things are made; deliberative, wherein persuasions and dissuasions; and juridical, wherein accusations and defences are managed.

692. Ubique autem facit sibi ingressum, accommo exordio, quo captat benevolentiam, attentionem, docilitatem; tum devenit ad propositionem; quam confirmat probantibus argumentis, illustrat explicantibus, dilatat amplificantibus, premitque adversarium confectariis; tandemque perorat apposito epiloquo.

692. But in all of these he maketh himself an entrance, by a fit exordium, whereby he engageth their good will, attention, docility; then he comes to the proposition; which he confirmeth by proving arguments, illustrateth with explaining ones, dilatateth with amplifying ones, and presseth his adversary with consequences; and at length, he concludes with an epilogue joyned thereto.

693. Gestus perornantes elocutionem, sunt in vultu, voce, motuque corporis: vultum refert, prout res exigit, submissum aut erectum, hilarem aut tristem, frontemque caperatam aut exporrectam: vo-

693. The gestures that set forth elocution, are in the countenance, voice, and motion of the body: he ordereth his countenance, as occasion requireth, submiss or erect, cheerfull or sad, and his forehead either wrinkled or smooth: he useth a voice

cem adhibet flebilem & interruptam in concitanda miseratione; acutam & incitatum in ira: lætam & blandam in gaudio: *motu* utitur ad obtestandum, complicatione manuum; ad læta, decenti complosione earundem; ad indigna, displosione pedis.

694. Cui oratio bene fluit, dicitur *disertus*; qui jucundè effatur, *facundus*; qui scit eloqui res potenter, *eloquens*, sive illi eloquentia veniat ex tempore, sive præmeditatè: maximè tamen, si promptus fuerit usque ad extemporalitatem: abusus oratoriæ facit *rabulam*.

mournfull and broken in the stirring up of pity; sharp and fierce in anger; merry and pleasant in joy: for motion, he useth folding of his hands, to beseech; a decent clapping of them together upon occasions of mirth; and at unworthy passages, stamping of his foot.

694. He whose oration floweth well, is call'd well-spoken; he that speaketh pleasantly, a good droll; he that knoweth how to speak things powerfully, eloquent, whether his eloquence be ex tempore, or premeditated: but especially, if he be ready even to ex tempore speaking; the abuse of oratory maketh a brawler.

C A P. LXXIII.

Poësis & Musica..

695. Poeta adhibet artificia eadem stylo ligato; hoc est, adstricto ad leges rythmi, aut metri.

696. Rythmus est rudimentum poëseos: ubi spectatur tantum numerus syllabarum cum simili cadentia ultimæ; ut,

Vos edatis

Horis statis;

Si non dente,

Saltem mente.

697. Metrum est, ubi omnes

Poetry and Musick.

695. A poet useth the same artifices in his bound up style, that is, tied to the laws of rythm, or meeter.

696. Rythm is the foundation or rudiment of poetry; where the number only of the syllables with the like cadence of the last is regarded: as,

At set hours meat

Resolve to eat;

If tooth none find,

At least in mind.

697. Meeter is, where all the syllabæ

syllabæ numerantur, mensurantur, ponderantur, certò numero & genere pedum poeticorum: nam pedes fiunt è syllabis: ut, ex duabus longis *spondæus* (cōn stāns;) *iambus*, è brevi & longa, (bō nī;) *trocheus*, è longa & brevi (sēm pēr;) *dactylus*, è longa una & duabus brevibus: ut (flē tē rē.)

698. E pedibus fiunt *versus*, è versibus *carmina* seu *poemata*; quorum genera (à diversa dimensione pedum) alias disces: ab argumento verò vocantur, *nuptiale carmen*, *epithalamium*; *funerale*, *epicedium*; *sepulchrale*, *epitaphium*; *paratum abiturientibus*, *propempticum*; *festiviter jocularè*, *epigrammata*; *acriter invectivum*, *satyra*, &c.

699. Arguti poetæ habentur in tanta æstimatione, ut soleant coronari à regibus laureâ, & decorari titulo laureati poetæ.

700. At musicus addit *carmini modulationem*, ut possit (pro auribus magis oblectandis) non tantum recitari, sed & cantitari: sive voce assa, sive admodulando tibiæ, vel cytharæ; & sive simplici modulatu & sonore uno, quod est *eupho-*

syllables are numbred, measured, weighed, with a certain number and kind of poetical feet: for feet are made of syllables: as of two long ones a spondee (cōn stāns;) an iambick, of a short and a long one, (bō nī;) a trochee, of a long and a short (sēm pēr;) of one long and two short; (flē tē rē.)

698. Of feet are made verses, of verses copies of verses or poems; the sorts whereof (from a several measuring of the feet) you shall learn some other time: but from the argument or subject they are called, a nuptial song; an epithalamium; a funeral one, an epicedium or dirge: an inscription for a tomb, an epitaph; made for those that are going away, a propempticum or l'envoy; one merrily jesting, an epigram; sharply rebuking, a satyr, &c.

699. Witty poets are had in so great esteem, that they are wont to be crowned with laurel by kings; and to be graced with the title of poet laureat.

700. But the musician setteth a tune to a song, that it may (for the more delighting of the ears) not only be rehearsed, but also sung: either with the voice only, or by tuning it to a pipe, or lute; and either with a single tune, and one note, which is *euphonia* [plain-song;] or with the

nia, five commodulatione plurium (per suavem consonantiam) quod est *symphonia*.

701. Ubi voces quatuor consonant harmonicè: supremam vocant *altum*; mediam, *tenorem*; imam, *bassum*: sed cantandum voce puerili, (antequam hircuitalliant, seu gallulascant) *discantum*: consonant autem suaviter *tertia*, *quinta*, *octava*: alias faciunt *dissonantiam* absonam.

702. Ergo ad evitandam discrepantiam, dum quisque *concinientium* cantat suam vocem, (depictam notis figurarum musicarum) unus præmonstrat modulum percussione manus: unde reliqui accipiunt mensuram *cantus* & *pause*.

singing together of many (by a sweet consent) which is *symphonia* [a consort.]

701. Where four voices harmonically agree: they call the highest, the treble, the middle, the tenour, the lowest, the base: but that which is to be sung with childrens voice, (before they speak big, or their voice break) descant [counter-tenour:] the third, fifth, eighth, agree sweetly; otherwayes they make a jarring discord.

702. Therefore to avoid disagreement, whilest every singer singeth his part (set down with notes of musical figures) one fore-sheweth the time by the striking of his hand: from whence the rest take the measure of their singing and pause [stop.]

C A P. LXXIV.

M E D I C I N A.

703. Aspeximus philosophiam, cum suis partibus & corollariis; *MEDICINA* sequitur, quam academia excolunt ideo; ut nè desint, qui queant præservare humanum genus à corporeis morbis.

704. Hi exercentur in noscendo subjecto valetudinis, humano corpore, per *anato-*

Medicine, or Physick.

703. We have taken a view of philosophy, with it's parts and corollaries: *MEDICINE* followeth, which the universities practise to this end; that there may not be wanting those who may be able to preserve mankind from bodily diseases.

704. They are employ'd in knowing the subject of health in man's body, by anatomy; and remedies by
miam:

miam ; & remediis , per *bota-*
nica & *chymiam* ; & in modo
applicandi ea per visitationes
agrorum : præsertim sicubi est
valetudinarium , ad quod con-
gregantur undeliber affecti
fonticis morbis , (five sanabili-
bus five insanabilibus) curandi
collectivo consilio medicorū .

705. Olim profitebantur
medicinam *empirici* : deinde
methodici , respicientes ad in-
dicationes morborum , post-
habitis experimentis : succes-
serunt *dogmatici* , conjungen-
tes rationes experientie , qui
se vocant *Galenicos* .

706. Hodie inclaruit me-
dicina *spagirica* , five *Hermeti-*
ca : admirabilis præparatione
ac subtilitate medicamentorū
sed simul formidabilis
ob summum discrimen , si
tractetur incautè : hi defudant
summo opere inemolienda ca-
tholica medicina , præsentia
ne adversus omnes morbosos
affectus ; quam ponunt in
quinta essentia , purificata ab
omni elementalī crassamento ,
(praxin medicinæ videbis in-
fra , c. LXXXVI .)

simpling and chymistry ; and in the
manner of applying them by visitati-
ons of the sick : especially if in any
place there be an hospital , unto which
are gathered from all places , these
that are troubled with hurtfull dis-
eases , (either curable or incurable) to
be cured by the joint advice of phy-
sicians .

705. Empericks heretofore pro-
fess medicinae [physick :] afterwards
methodists looking to the signs [sym-
ptomes] of diseases , the experiments
being not regarded : dogmaticks suc-
ceeded , adjoining reasons to experi-
ence , who call themselves Galenists .

706. At this day the spagirick ,
or Hermetick physick is in renown :
admirable for the preparation and
subtilty of medicines , but withall
dreadfull for the great danger , if it
be handled unwarily : these sweat
very much in contriving an universal
medicine for a present cure against all
distempers ; which they in a fifth es-
sence [quintessence] refined from all
elementary grossness , (you shall see
the praxis of physick beneath , Cap.
LXXXVI .)

C A P. LXXXVI.

JURISPRUDENTIA.

Knowledge in LAW.

707. Jurisprudentiæ datur

707. Men employ their studie
N 3 ope r

opera, ut non deficiat qui sci-
ant præstare humanam socie-
tatem salvam à diffidiis: per
notitiam, 1. *vinculorum*, qui-
bus confortio illa continetur:
2. *casuum*, quibus labefactat-
ur: 3. *remediorum* quibus re-
stauratur.

708. Vincula, sunt J U R A,
triplicia, *personarum*, *rerum*,
actionum.

709. *Jus personarum* est po-
testas personæ in personam,
cujus via una præst, dicitur-
que *sui juris*; altera subest,
eoque est *juris alieni*: ergo huc
spectat, *maritalis* potestas su-
per uxorem; *patria* super libe-
ros; *tutoria* super impuberes
pupillos; *curatoria*, super pu-
bères; *potestasque magistratus*
super subditos.

710. *Jus rerum* est, quod per-
sona quæpiam habet potesta-
tem in quampiam rem: estque
vel *dominium*, quum res tenetur
à proprietario; vel *possessio*,
cùm tenetur ab usu fructua-
rio; vel *servitus*, cùm est in
manu ministratoris.

711. *Jus actionum*, est fa-
ctum quoddam obligans eum,
qui admisit illud: sive sit *con-
ventio*, quâ duo (vel plures)
consentiunt in aliquid dar-

in the knowledge of the law, that
there may not be wanting those who
may know how to keep humane socie-
ty safe from dissensions: by the know-
ledge 1. of bonds, by which that fel-
lowship is kept together: 2. of cases,
whereby it is weakened [slackned:]
3. of remedies, by which it is re-
stored.

708. The bonds, are the RIGHTS,
those threefold; of persons, things,
actions.

709. The right of persons is the
power of person upon person, by force
of which one is above the rest, and is
said to be of his own power; ano-
ther is under, and is therefore of an-
others power: hither therefore ap-
ertaineth the husband's power over
the wife; the parents over the chil-
dren; the guardians, over orphans
under age; the overseers over those
at age; and the power of a magi-
strate over his subjects.

710. The right of things is
that, by which any person hath power
over any thing: and is either pro-
priety, when the thing is held by the
right owner; or possession, when it
is held by the tenant; or service,
when it is in the hand of a servant.

711. The right of actions, is
something done binding him, that did
it, whether it be an agreement,
whereby two (or more) agree in giving
or doing any thing; and bind them-

dum

dum vel faciendum; ſequē obligant ad præſtandum, (uti fit in *ſtipulatione*, *pollicitatione*, & quocunque pacto aut contractu;) five *delictum*, quo admiſſo oritur jus pœnæ inferendæ, &c.

712. *Casus*, à quibus venit diſſolutio, vel labefactatio humanæ ſocietatis, ſunt; aut *invaſio* alieni juris, aut *deſectio* proprii; aut *violatio* contractuum (quorum ſumma eſt, *do ut des*; *facio ut facias*; vel, *do ut facias*, *facio ut des*;) ex illo enim trino caſu origo omnium litium.

713. *Remedium* eſt, ut reſtituatur unum quodque in ſuum locum, ſecundùm præſcriptum *juris*: quod eſt vel naturale, vel gentium, vel municipale, collectum è propriis conſuetudinibus & ſtatutis alicujus loci.

714. Ergo dum aliqui contraverſantur inter ſe, de ſuo jure, ejusque ſenſu, itur ad *Jureconſultum*, aut ad collegium jure conſultorum in academiam; qui explanent dubietatem legali reſponſo.

715. Et quia illorum reſponſa conſtant magnam partem allegationibus authoritatum, diſce uſitatas abbrevia-

ſelves to perform; (as it is in an engagement, promiſe, and any covenant or contract,) or ſome fault, which being committed there ariſeth a right of inſlicting puniſhment, &c.

712. *Cases*, from which cometh the diſſolution and undoing of humane ſociety, are; either the invaſion of anothers right, or leaving of ones own; or breaking of contracts, (the ſumm whereof is, I give that, you may give; I do that you may do; or, I give that you may do, I do that you may give;) for from theſe three caſes is the beginning of all ſtrifes.

713. The remedy is, that every thing be reſtored into it's place, according to the preſcript of law: which is either natural, or that of nations, or municipal [*common-law*] gathered out of the particular cuſtomes and ſtatutes of ſome place.

714. Therefore while ſome fall out among themſelves concerning their right, and the intent thereof, they go to a lawyer, or to a colledge of lawyers in an univerſitie [*inne of court*]; who by a legal answer may explain [*lay open*] the doubtfulneſs.

715. And becauſe their answers conſiſt for a great part of the allegations of authority, learn the uſual abbreviations of words; Jcti. that

turas vocum: *Feti*; id est, *is, the Lawyers*; Instit. Institutions: jureconsulti: *Instit.* instituti- V. the Ancient Digest: N. the Modern Digest: C. the Code: A. Authentick: D. in the Digest: c. chapter: §. paragraph: l. read, &c. (you shall see the praxis of law, chap. LXXXVI.)
 N. novum digestum: C. co-
 dex: A. authentica: D. dige-
 stione: c. capitulo: §. para-
 grapho: L. lege, &c. (*Praxis*
 juris videbis Cap. LXXXVI.)

C A P. LXXXVI.

THEOLOGIA.

DIVINITY.

[Theologie].

716. Studium rerum divinarum, *Theologia*, colitur eò, ut non desint qui consulant securitati animarum, in iis quæ spectant ad æternam salutem.

716. The study of divine things, Theologie, is therefore followed, that there may not be wanting those who may look after the safety of souls, in those things which belong to eternal salvation.

717. Tota fundatur super revelationes Dei: quarum nihil ignorare, universalem sensum tenere catholicè, & posse vindicare, quæ inde torquentur hæreticè, theologica est exactio.

717. It is wholly founded upon the revelations of God: whereof to be ignorant of nothing, catholicely to hold the whole meaning [sense,] and to be able to maintain [vindicate] those things which are hence heretically wrested, is a theological exactness.

718. Alioqui dividitur, theologia in *positivam*, quæ consistit in dilucidatione scripturarum per scripturas: & in *catechetica*, quæ habet accommodationem effatorum Dei ad caput simplicium: & in *didacticam*, quæ occupata est in reductione singulorum ad corpus doctrinæ: & pol-

718. Divinity is otherwise divided into positive [text-divinity,] which consisteth in clearing the scriptures by scripture; and into catechetical, which hath the accommodation of the oracles of God to the understanding of the simple; and into didactical [common places,] which is busied in the reducing of particulars to a body of doctrine [a systeme;] *micam*,

micam, quæ habet resolutionem scripturarum in questiones, de quibus dimicetur : & *propheticam*, quæ quærit modum proferendi populo verba Dei divinè : & *casualem*, quæ instituit solvere casus conscientiarum : & *cabalisticam*, captantem mysticos sensus ex apicibus scripturarum (Reliqua vide cap. XCIV. &c.

719. *Signatura veri philosophi* est, contemplatio jugis, penetratio in causas rerum, & non disceptare, sed demonstrare : *medici*, temperantia, vivacitas, vigor : *jurisconsulti*, tenacitas æquitatis, placiditas morum, concordia cum omnibus : *theologi*, pietas, humilitas, & nihil redolere mundum aut mundana.

and polemical [*controversie*,] which hath the resolution of Scriptures into questions, which may be disputed : and propheticall [*preaching*,] which seeketh a way to speak to the people the words of God divinely; and casuistical, which designs to resolve cases of conscience ; and cabalistical, catching at mystical senses out of the titles of scriptures. (See the rest Chap. XCIV. &c.

719. The character [mark] of a right philosopher is, a continual contemplation, a searching into the causes of things, and not to reason it, but demonstrate : of a physician, temperance, liveliness, vigour : of a lawyer, the holding fast of equity, a pleasantness of behaviour [manners,] an agreement with all : of a divine, piety, humility, and not to favour of the world at all, or of worldly things.

C A P. LXXVII.

Erudita conversatio.

720. Hucusque de libris & scholis ; sequitur, quomodo sit versandum in illis, ut fiat pretium operæ : nempe non maceratione solitaria, (licet id non improspere cedat, quibusdam autodidacticis) sed sociali conversatione cum erudit.

721. Sanè & is qui vacat lectione librorum, habet con-

Learned conversation.

720. Hitherto concerning books and schools; it follows, how we must be conversant in them, that it may be worth our labour : namely not by a solitary maceration, (although that doth not unluckily succeed, with some self-teachers) but by a social conversation with the learned.

721. And truly he that finds time to read books, hath a converse, but
versatio-

versationem, sed cum absenteis, alloquentibus nos per sua scripta: quorum suggestionibus ut imbuaris egregiè, habe *museum* in solitudine, remotum à turba, nè quid interturbet, nec admitte promiscuos, sed selectos: quos tracta mundè, nè macula lituris: nisi velis reminiscantiam sublevare subnotando notabiliora. Antiqui soliti fuerunt notare approbanda asterisco, (*) improbanda obelisco (+)

722. In transcurso moneo, *matutinas horas esse accommodatissimas studiis*; ergo si lucubras antelucano, *ceruus* conducit præ sebacea: tedæ officiant insigniter lucubrationibus, quia fumidæ; *candelabrum* sit elevatum; *umbraculum*: viride; *emunctorium* præstò, ad ellychnium identidem emungendum, nè obumbrat; sed *fungum* mox opprime, nè foeteat.

723. Quicquid autem legis (five ordinariis horis, five successivis) ter legito: *primum*, ut intelligas; *deinde*, ut feligas, & enotes; *demum*, ut selecta memoriz imprimas: (selectio autem est excerptio, atque consignatio utiliorum;

with the absent, speaking to us by their writings: with whose instructions that you may be thoroughly season'd, get a study in a close place, remote from company, lest any thing should disturb you, neither entertain all sorts, but choice ones: which handle cleanly, do not dawb with blots: unless you would help your memory by marking the more notable things: the ancients were wont to mark things to be approved of with an asterisk or star (), things to be disapproved of with an obelisk or broach (+).*

722. By the by I put you in mind, that the morning houres are the fittest for studies: therefore if you study before day, a wax-candle is better then a tallow one; torches mightily offend studie, because they are smoaky: let the candlestick be raised up: the shadow-glass, green: the snuffers at hand, to snuff the wick ever now and then, lest it grow dim; but put out the snuff immediately, lest it sink.

723. But whatsoever you read (either at ordinary, or spare houres) read it three times over: first, that you may understand it; next, that you may choose, and mark out; lastly, that you may imprint the choice things in your memory: (now gathering is a picking out, and marking of
non

non in rejectancas schedas, sed in diurnum, seu adversaria, aut locos communes.

724. Verum-enimverò si cupis progressionem majorem, quære tibi socium studiorum, cui communices lecta: sive ille sit intelligentior te, & tibi possit enucleare non intellecta; sive à te demùm discat: (tu enim docendo alium erudies te ipsum:) proinde nunquam pigeris versari cum istiusmodi sodali.

725. Habe tecum pugillares (aut plumbaginem cum chartula) semper, ut assignes quicquid incidat, (referendum in diaria, vel inquirendum in authoribus) ut nè quidquam excidat.

726. Præterea si non pigeris proficisci ad claros viros, (etiam procul patriâ,) poteris tùm publicè audire profitentes in auditoriis, & disputantes de controversiis, differentesque de quibuscumque; tùm privatim percontari quidvis modeste, (insinuando te in eorum familiaritatem honestè) & sic proficere in dies.

727. Nec ibi deerit gratum sodalitiū, ubi partitis authoribus inter vos, quod quisque legisset seorsim, totum id

the more usefull things, not in loose papers, but in a day-book, or adversaria, or common-place.)

724. Yet nevertheless if you desire greater progress, look out for a companion of your studies, to whom you may impart your readings: whether he be more understanding than you, and may clear the things to you, you understand not; or whether he may learn of you: (for you by teaching another will improve your self:) wherefore never be unwilling to converse with such a kind of companion.

725. Have with you alwayes a table-book (or black-lead-pen with paper,) that you may set down whatsoever falleth in, (which is to be referred to the day-books, or to be inquired in the authors) that nothing may slip aside.

726. Moreover if you are not unwilling to go to renowned men, (although far from your native country;) you may both hear them publickly professing in schools, and disputing of controversies, and discoursing of all manner of things; and privately enquire any thing modestly, (by insinuating your self handsomely into their acquaintance) and so go forward daily.

727. Nor will there be wanting a pack of close students, where authors being parted among you, what every one shall have read by himself, poterit

poterit fieri commune per collationem: quotiesque ibidem videbis distribui præmia diligentiae (in promotione baccalaureorum, magistrorum, doctorum) toties te instigari ad virtutem senties.

728. Tandem venustulum est uti quoque sapientia absentium, ad tuos progressus: per literas nimirum, scriptas eruditè ultrò citròque, & quæstiones quascunque agitas pulchrè.

729. Antiqui exarabant epistolia, in ceratis tabellis, eoque deletilibus; nobis melius serviunt chartaceæ, quas complicamus & obsignamus sigillo; ut nequeant legi, nisi ab illo cui destinantur, resignandas illi soli, ad quem inscriptio spectat, & cui traduntur à latore: accidit tamen ut interceptantur ac refringantur: quamobrem jam solent scribi occultis modis, iisque variis: *schedula*, nihil secreti habens, non sigillatur.

all that may by conference be made common: and as often as in the same place you shall see rewards of diligence bestowed (in the promotion of bachelours, masters, doctours) so often you will feel your self stirred up to virtue.

728. Lastly, it is a pretty thing to make use of the wisdom of those that are absent, for your improvement: namely by letters, written up and down [to and fro] learnedly, and any kind of questions debated fairly.

729. The ancients wrote little epistles in tables waxed over, and therefore to be blotted out; those of paper are more convenient for us, which we fold up and seal; that they may not be read, unless by him to whom they are design'd, to be opened onely by him to whom the superscription belongeth, and to whom they are delivered by the messenger; yet nevertheless it happens that they are intercepted and broken open: wherefore now they are wont to be writ in secret wayes, and those in various characters: a note, having no secret in it is not sealed.

C A P. LXXVIII.

Oeconomia; ubi lustramen domus.

730. Introgrediamur domos, urbes, regiones; visuri quomo-

Oeconomic [household government;] where the view of a house.

730. Let us enter into houses, cities, countries: to see how men do

do homines confociant se (pro adjutorii mutui) in familiis, respublicas, regna: cujus rei fundamentum est unanimitas.

731. Minima confociatio est domestica; sed ea trina, conjugalis, parentalis, herilis, ritè coalita, in unam familiam: quam regunt paterfamilias, cum matrefamilias; quibus subsunt filiifamilias cum familiabusfamilias, universoque famulatio.

732. Habitationem horum (domum,) faciunt ornatam parietes bene fenestrati, albat, picturati; tutam verò janue bene obsecrata, & fenestrae bene cancellatae aut clathratae; denique commodam, conclavia justae amplitudinis, bene distincta, pro vario usu: nempe ut sit (ubi convivant domestici,) hibernaculum seu hypocaustum instructum fornace vel camino; & pro parandis cibis culina; tum refectum suppellectile mensaria, cenaculum; & pro penore aservando, cella penuraria; & pro requie nocturna, dormitoria; proque aliis rebus, debita reconditoria, arca, &c. denique pro transferendis rebus, sportae, cophini, &c.

733. Cubiculum habeat spon-

confociate themselves (for mutual aid [help]) into families, commonwealths, kingdomes: the ground of which thing is unanimity and agreement,

731. The least society is domestic [that of a house;] but that threefold, of man and wife, parent and child, master and servant, rightly clos'd into one family; which the father with the mother of the family govern; under whom are the sonnes with the daughters of the family, and the whole retinue of servants.

732. The habitation of these (a house,) is adorn'd with walls being well windowed, whited, painted; but secur'd with gates well lock'd, and windows well barr'd or latticed; finally, it's made convenient, with rooms [chambers] of a just bigness well divided, for sundry uses: to wit, that there may be (where the household live together) a stove built with a fornace and chimney; and a kitchen for the dressing of meat; then a dining-room filled with table-furniture, and for the keeping of provision, a buttery; and for night-rest, bed-chambers [lodgings;] and for other things, fit closets, presses, chests, &c. finally, for the carrying [removing] of things flasks, baskets, &c.

das,

das, & lectisternia, (*grabhati sunt pro meridiana reclinacione delicatorem* :) & *matulas*, pro vesica levanda, adstructisque successus (*latinas*) pro exoneranda alvo.

734. Bona ordinatio *conubernii*, sita est in distributione rerum & officiorum: ut quæque res (in domo) habeat suum locum; & quisque locus suam rem, quo pateat statim, quid absit vel adsit: item quisque domesticus suam functionem; & quæque functio suum agentem, (nè respectando alius alium, omnes agant incuriosè,) omnia tamen sub inspectione æconomi.

733. Let a bed-chamber have bed-steads, and coverlets, (*couches are for the lying down at noon of nice persons* :) and chamber-pots to make water in, and easements [*privies*] built near to go to stool to ease nature.

734. The good ordering of a household, is placed in the distribution of things and offices: that every thing (in the house) may have it's place, and every place it's thing, that it may immediately appear, what is there or missing: also that every one of the family have his office, and every office it's officer, (*lest while they look on one another, they all grow careless* ;) yet every thing under the oversight of the steward [*housekeeper* .]

C A P. LXXIX.

Conjugalis societas.

735. Basis familiæ est *conjugium*, divinitus sanctum, ad propagationem generis humani; inde enim veniunt legitimi liberi, & propter hos *famulus*, cum reliquo æconómico apparatu.

736. Matrimonio junguntur *mas* & *fæmina*: nec refert, utrum ille sit juvenis an viduus, illa virgo aut vidua; dummodo ambo sint cælibes, ac nubiles, nec prænimis dispariles ætate, aut se nimis tangentes, nè nuptiæ fiant incestuosæ.

Conjugal society.

735. The foundation of a family is wedlock [*marriage*] ordained by God, for the propagation of mankind; for from thence come children lawfully begotten, and for these a retinue of servants, with the rest of the household furniture.

736. A man and woman are joyned in marriage; neither doth it matter, whether he be a batchelour or widdower, she a maid or widow; if so be they are both single and marriageable; nor too unequal in age, or too near related, lest the nuptials prove incestuous.

737. Mas-

737. Masculus dispicit sibi de sœmella, ad nubendum habili, (nimium juvenulæ, nimiumque exoletæ, & anus, sunt illocabiles:) quæ honestè nata sit, & pudicè educata, famæque illibatâ: utrum insigniter dotata, aut elegans, non adèd curandum: quia dos (sive fuerit profectitia, sive adventitia) & forma, sunt bona transitoria, & excitant plerumque rivaless, quorum alterum ferre repulsam necesse est.

738. Postquam adamârit aliquam, quam diu hanc procat, vocatur *procus* (sive prociat per se, sive per pronubum, aut conciliatricem:) atque si uterque nupturientium *patrimus* est, aut *matrimus*, nihil tentant infciis parentibus: si his orbi, consulant curatores.

739. Cùm *amafius* obtinet, ut sibi *amafia* despondeatur, celebrantur *sponsalia*, confirmaturque desponsatio *sponsalitiis* arrhis: alicubi etiam proclamantur desponsati publicè è suggestu, nè connubia sint clandestina.

740. Tum dies dicitur *nuptiis*, quâ (nisi fortè repudi-

737. The man looks out for a woman, fit to be married (those that are too young, and too stale and old are hardly put off:) one that is of good birth, and civilly brought up, and of an unsported reputation: whether she hath a good portion, or be handsome, is not so much to be regarded: because a portion (whether she be born to it, or it come by the by) and beauty, are goods transitory [fading,] and commonly stir up rivals, of which the one must of necessity suffer a repulse.

738. After he hath fall'n in love with any one, as long as he wooeth her, he is called a suiter (whether he woos her himself, or by proxy or a match-maker:) and if both those that are about to marry have a father, or mother alive, they ask nothing without their parents knowledge: if they be fatherless and motherless, they consult their guardians.

739. When the lover obtains that his sweet-heart may be betrothed to him, the espousal, are celebrated, and the espousing is confirm'd by troth and pledges; and in some places those that are espoused are asked publickly in the church, out of the reading-pew, that marriages may not be private [in stealth.]

740. Then a day is appointed for the wedding, on which (unless by

um

um intervenisset) copulantur á parocho, ad amicabilem & indissolubilem cohabitationem: atque sic fiunt *conjuges* jurata passionē: quam solemnitatem cohonestant utriusque partis necessarii: & *paranymp̃hi*, comitantes sponsum; & *pronubæque* concinantes sponfam.

741. A nuptiis *sponsa* ducitur in ædes *sponsæ*, fiuntque *repotia*: & tum iste recipit nomen *mariti*; illa *maritæ*: eos verò, qui sibi elocarunt natam & gnatum incipiunt vocare, *socerum*, & *socrum*; ipsi ab eis appellandi *gener* & *nurus*. Qui verò elocant nepotem vel neptim, fiunt *prosocer* & *prosocrus*: qui duxit, *progener*; quæ nupsit, *pronurus*: sed *mariti* frater, est *levir*: ejusdem soror, *glos*; fratris uxor, *fratria*; sororis maritus, *sororius*; cæteri conjugatorum cognati fiunt inter se affines.

742. *Commune officium conjugum* est, præstare sibi mutuò amorem & fidelitatem, ut neuter alteri sit *invisus*, & *infidus*: *mariti* seorsim est susten-

chance there prove a breach) they are coupled by the minister of the parish, to a loving and indissoluble living together: and thus they become man and wife *plighting their troth*; which solemnity the friends of both parties do honour: and the bride-men, accompanying the bride-groom; and the bride-maids trimming up the bride.

741. After the wedding the bride is led into the house of the bride-groom, and the bridal is kept: and then he receives the name of husband, she of wife: but those who gave their son and daughter in marriage they begin to call father-in-law and mother-in-law; they themselves are call'd by them son-in-law and daughter-in-law: but those that marry out a grand-son or grand-daughter, become grand-father and grand-mother-in-law; he that hath married her, a grand-child's husband; she that is married, the grand-child's wife; but the husband's brother, is the brother-in-law; his sister, sister-in-law; the brother's wife, sister-in-law; the rest of the married folks kindred become cousins among one another.

742. The common duty of married folks is to perform to one another mutual love and faithfulness, that neither be unkind, or unfaithful to the other: the duty of the hus-

tare

care & protegere uxorem; hujus rursùm, accommodare se consorti, eùmque venerari.

band is to maintain and protect his wife; and of her again, to apply herself to her partner, and to reverence him.

C A P. LXXX.

Parentalis societas.

The society betwixt parent and child.

743. Deus benedicit conjugatis sobole, masculâ & femineâ: cujus intuitu fiunt è conjugibus parentes, pater & mater.

743. God blesseth those that are married with an off-spring, male and female: in respect whereof, of man and wife they become parents, father and mother.

744. Cùm tempus parienti adest, gravidæ uxori & Deus avertit casum abortionis, enititur filium vel filiulam; (quandôque gemellos, rarò tergeminos:) & postquam peperit, sit puerpera, latitatura domi tempore puerperii, totis sex septimanis, à partu.

744. When the time is come that the wife big with child should bring forth, and God turneth away the fate of abortion, she is delivered of a little son or daughter; (now and then twins, seldome three children) and after she hath brought forth, she becometh a woman in child-bed, lying close at home in the time of her child-bed, for six whole weeks from her delivery.

745. *Obstetrix* excipit infan-
tulum, tepidulo balneolo, læ-
tantérque, si videt esse corpus-
culo salubri, & absque nex-
u; reponitque in *cunas*, in-
volutum fascis & religatum;
yagientem autem delinit cu-
narum prorsùm rursùm agi-
tatione & consopit.

745. The midwife takes the little babe, in a warmish bath, and gladly, if she sees it is of a sound body, and without blemish; and layes it in the cradle, being roll'd up and bound in swadling clothes; but when it cryeth she rocks the cradle, and lulls it to sleep.

746. Alma genetrix, (aut etiã conducta *nutrix*;) fo-
vet suum alumnum recliv-
em in sinu, amplexatur,

746. The gentle mother (or also the hired nurse,) cherisheth her nurse-child lying in her-lap, hugs it, kisses it, buſses it; and giving it the dug
O osculatur,

osculatur, suaviatur: præbensq; ubera esurienti, lactat (pulsio ipse lactes:) paulò tamen post satiatur pappâ, præmansõe cibo.

747. Ancilla abstergit fordidatum molliculis linteolis, & involvit plumeis lectulis, nè algeat: sæpiusculè etiam impositum ulnis circumgestat, ut adsuescat sessitationi.

748. A lactatione pervenitur ad ablectationem, & à cunabulis ad serperastrâ: ut condiscat ibi manducare cibos solidiores; hic incedere firmiter, bimulus circiter: reliquum infantilis ætatis exigitur lallando & lusingando, pupis, crepitaculis, cæterisque crepundiis: sed petulantè evagantem, aut flentem; solent territare manducato, ficto terri culamento.

749. Ex utròque parente eodem nati, vocantur germani, fratres & sorores: ex eodem patre duntaxat, semigermani; ex eadem matre tantum uterini: cæteri venientes ab eadem progenie, consanguinei; è paterna stirpe agnati, è materna, cognati: vitricus & noverca habent privignos & privignas.

750. Pater tui parentis (utriuslibet) est tuus avus;

when 'tis hungry, suckleth it, (the babe it self sucketh:). yet a little while after she fills his belly with pap and chewed meat.

747. The wench that looks to't, wipes it being souled with soft clouts, and wraps it in little feather-beds, that it may not catch cold; and oftentimes taking it in her arms, carries it about, that it may be used to sitting.

748. After suckling they come to weaning, and from the cradle to the leading-stool; that the little child there may learn to eat more solid meats; here to go strongly, being about two years old: the remainder of the infant's age is spent in prattling and playing, with babies, rattles, and other baubles: but if it wantonly run up and down, or cry, they use to fright it with a bul-beggar, a feigned bugbear.

749. Those that are born of the same parents, are call'd natural brothers and sisters: of the same father only, by the father's side, the same mother alone, by the mother's: the rest proceeding from the same race, kindred; from the father's stock, kindred by the father's side; from the mothers, by the mother; a step-father and step-mother have step-sonnes and step-daughters.

750. The father of your parent (either of them) is your grand- [fire]

mater

mater ejusdem, tua *avia*: porro horum parentes, tuus *proavus* & *proavia*; istorum, tuus *abavus* & *abavia*; illorum, tuus *atavus* & *atavia*; rursumque horum, tuus *tritavus* & *tritavia*; qui supra sunt, vocantur *maiores*.

751. Liberi autem nostri sunt, *filius* & *filia*: quorum liberi nobis erunt *nepos* & *neptis*; istorum, *pronepos* & *proneptis*; illorum, *abnepos* & *abneptis*; inde sunt, *atnepos* & *atneptis*, *trinepos* & *trineptis*; qui infra hos erunt, appellabuntur *posterii* nostri.

752. In collateralis linea, tui patris *frater*, est tuus *patruus*; matris *frater*, *avunculus*; patris *soror*, tua *amita*; matris *soror*, *matertera*; supra hos sunt *propatruus* & *proamita*, *abpatruus* & *abamita*; *proavunculus* & *promatertera*, *abavunculus* & *abmatertera*.

753. Duorum fratrum liberi sunt *patrueles*; duarum

father; their mother, your grandmother: moreover the parents of them, your great grand-father, and great grand-mother; and theirs, your great grand-father's father and mother; and their's again, your great grandfather's father's father and mother; those that are beyond them are called ancestors.

751. But our children are son and daughter; whose children are our grand son and daughter; theirs, our great grand son and daughter; theirs, our great grandchild's son and daughter: thence downward our great grandchild's grand son and grand daughter, our great grand-child's great grand-son and grand daughter; those that are beneath them will be termed our posterity.

752. In the collateral line, your father's brother is your uncle by the father's side; your mother's brother, your uncle by the mother's side; your father's sister, your aunt by your father's side; your mother's sister, your aunt by your mother's side; above these are the great-uncle & the great-aunt by the father's side, and your great-uncle's uncle, and your great aunt's aunt by the father's side; your great-uncle and great-aunt, your great-uncle's uncle, and your great-aunt's aunt by your mother's side.

753. The children of two brethren are brother's children, of two sisters,

sororum, consobrini; fratris ac sororis amitini & matruales; sed horum omnium indistinctè, sobrini,

754. Officium parentum est, attendere educationi communiter: hoc est, assuefacere prolem ad operositatem, moralitatem, pietatem: retrahere vero ab ignavia, morositate, (nè consuescant incedere incompti, impexi, illoti, squallidi,) impietate: sed quædam materculæ solent nimis blandiri, & indulgere filiis, præsertim unigenitis; quâ corruptelâ illi fiunt immorigeri, tandemque degeneres.

755. Ingenui liberi sint obsequentes suis genitoribus, ad nutum; fugiant impatientiam & murmura, multoque magis contumaciam & perversitatem, nè illis moveant iram, aut sint dehoneſtamento.

756. Parentum quoque est; colligere liberis hereditatem; cujus participes fiunt posthumi etiam: (hoc est, post parentale funus nati:) sed spurios & nothos exheredes jura volunt.

757. Si præmaturè demoriuntur, relicturi post se superstites orphanos natu minores,

sister's children: of brother and sister, brother's and sister's children; but of all these indistinctly, cousins.

754. The office of parents is in common, to attend [take heed] to their education, that is, to accustom their children to painfulness, good behaviour, piety; but to withdraw them from idleness, clownishness, (lest they take a habit of going unready, uncom'd, unwash'd, slovenly,) ungodliness: but some fond mothers are wont to coddle and indulge their children too much, especially their darlings, by which ill course they become disobedient [undutiful,] and at length degenerate.

755. Let ingenuous children be obedient to their parents at a nod; let them avoid impatience and grumbling, and much more doggedness and stubbornness, lest they provoke them to anger, or prove a disgrace to them.

756. It is the duty also of parents, to get an inheritance for their children: whereof also the afterborn [posthumi,] (that is, born after their father's death) are made partakers: but the laws will have bastards and those that are unlawfully begotten to be disinherited.

757. If they dye before their children are grown up, being to leave behind them orphans under-age, it

res,

res, addeceat constitui testamento orbitatis præsidium, tutores, : qui debent vindicare ab injuriis perinde ac suos; dùmque tutela est deponenda reddere rationem pupillis, juxta inventaria, nihil esse abalienatum.

758. Quum majores annis herciscunt bona ipsi inter se, tributio competit maximo natu, prælectio minimo natu, & sic consequenter: sed alicubi primogenitus fit hæres ex asse: alibi legatarii etiam litigant, legato non contenti; potissimum si quis intestato decedat.

is fit that there be by will appointed guardians, the guard of those that have lost their fathers, who ought to defend them from injurious persons as they would their own children; and when they are to lay down their charge, to give an account to their wards, according to the inventories, that nothing is imbecill'd.

758. When being at age they divide the goods among themselves, the partition belongeth to the eldest son, the choice to the youngest, and so in order: but in some places the first born is heir of all: elsewhere the legatees also go to law, being not contented with their legacy, especially if any one depart without making of a will.

C A P. LXXXI.

Herilis societatis.

The society between master and servant.

759. Familiâ per sobolem auctâ (vel etiam imminutâ) opus est domesticis servitiis conduci famulos & famulas; respectu quorum parentes fiunt heri & heræ.

759. The family being increased by children (or also lessened) it is necessary that men-servants and maid-servants should be hired for house-services: in respect whereof the parents become masters and dames.

760. Olim servi legebatur, aut emebantur, è captivis, ideoque dicebantur mancipia; in quos fuit potestas vitæ & necis: servorum nati fuerunt veræ, similiter in servitute manentes, donec essent facti liberi per manumissionem dō-

760. Heretefore [in times past] servants were chosen, or bought, from among captives, and therefore were call'd slaves, over whom was a power of life and death: the children of servants were villains; in like manner remaining in bondage, until they were made free by an acquittance of

minorum, atque tunc dicebantur *liberti & manumissi* : apud nos rigor iste desit non immerito ; pauperiores serviunt conducti mercede , habenturq; instar *clientum* , & *clientarum* , sub *patronis* , quos sibi elegerunt.

761. *Herorum munus est* , præbere famulis mercedulam & alimoniam ; & distribuere pensa laborum quot diebus ; sed & intervifere , an quisquis agat quod debet , & quomodo ? (In majori familia officia quoque distribuuntur , ut alius sit *janitor* , *mediastinus* , *scoparius* , *pedisequus* , &c.) *Servorum* autem est , diligere heros , ac honorare ; fideliterque exsequi demandatas operas ; & præcavere incommoda ; & vivere concorditer cum conservis ; nec oggannire impudenter , &c. nî velint tractari serviliter.

the masters, and then they were called free-men and denizens ; with us that severity is not undeservedly left off ; the poorer sort serve being hired with wages , and are counted instead of tenants and retainers under those land-lords which they have chose to themselves.

761. *It is the duty of masters to give their servants wages and diet ; and to give out the tasks of their labours every day ; and withall to come and see whether every one doth what he ought, and how ? (in a larger family places also are set , so that one is a porter [door-keeper ,] another is a drudge, a sweeper, a foot-boy, &c. but it is the duty of servants, to love and honour their masters ; and faithfully to discharge the works imposed on them ; and to prevent inconveniencies ; and to live peaceably with their fellow-servants ; nor impudently to chat , &c. unless they would be handled like slaves.*

C A P. LXXXII.

Oeconomica mutationes.

762. Fit interdum *immunitatio status æconomici* ; cum vel habitatio ipsa transfertur , per demigrationem aliâ ; vel disrumpitur *cohabitatio* familiarium.

763. Nam si familia incre-

Domestical changes.

762. *Now and then there is made a change of the household state ; when either the habitation it self is removed , by departing to some other place ; or the cohabitation of those that are of the family is broke up.*

763. *For if the family increaseth,*
scit,

scit, ut eam nequeat capere domus una, aut sustentare locus unus, vel speratur aliubi melioratio rei familiaris, commigratur indè aliorsum, convasatis reculis mobilibus, & translatis unà; immobilibus autem divenditis.

764. Conjuges interdum sejungit adulterium alterutrius, ut fiat inter ipsos *divortium*: sed barbaries est, repudiare nuptam nulla de causa, tantum quòd displiceat cum illa degere vitā connubialem.

765. Quidam improles adoptant extraneos, qui dicuntur *filiis adoptivi*; fiuntque hæredes jure adoptionis, rursus alii exhæredant filios, propter facta propudiosa; imò & abdicant è familia.

766. Atque tum cessat officium parentale per *abdicationem* vel *emancipationem* filii, sic ut & *elocationem* filiae: herile autem, si famuli resignant servitium, aut nos ipsi *renunciamus* eis: sed cum conjugium reiteratur à viduatibus, aut adoptatur alienigena proles; aut adsciscitur novum famulitium; ibi mutatio pensatur permutatione.

that one house cannot hold it, or one place maintain it, or the bettering of ones estate is hoped for elsewhere, they remove from thence to another place, packing up their moveable goods, and carrying them along with them; but selling [putting off] those that cannot be remov'd.

764. Now and then the adultery of either of them parteth man and wife, so that there is a divorce between them; but it is a base thing, to put away a wife for no reason, onely because he doth not like to live with her in marriage.

765. Some having no children adopt strangers; who are called adopted children; and become heirs by right of adoption: again others disinheret their sonnes, for uncivil actions: yea and turn them out of the family.

766. And then the parents duty ceaseth by disinheriting or releasing of a son, as also the putting forth of a daughter; but the masters, if the servant resign [give up] their service, or we our selves put them away: but when widowed persons are married again, or a foreign issue is adopted; or a retinue of new servants entertained, there the change is made good by an exchange.

Politia : ubi lustramen urbis.

Policy : where the survey of a city.

767. *Respublica dicitur, reductio familiarum multarum sub regimen unum : instituta eò, ut omnes queant degere tranquillè, & agere sua impræpeditè, neq; potentior opprimat imbecilliore.*

767. *The bringing of many families under one government, is call'd a commonwealth : instituted therefore, that all may live peaceably, and do their business [manage their affairs] unhindered, nor the more powerfull oppress the weaker.*

768. *Ad hanc rem opus est 1. adunatione domiciliorum; quæ minor, appellatur pagus; major, oppidum; maxima, urbs. 2. Limitatione ordinum, ut alii præsent, cum potestate & jurisdictione; alii subint, cum subjectione & obsequela. 3. Certis legibus, quibus omnes & singuli colligati sunt, in corpus unum.*

768. *For this purpose there is need of 1. the uniting of dwellings; which if less, is call'd a village; larger, a town; greatest, a city. 2. the bounding of degrees, that some may rule with authority and jurisdiction; others be kept under, with subjection and obedience. 3. certain lawes, by which all and every one are bound together into one body.*

769. *Forma regiminis est triplex; quippe administrat rempublicam 1. alicubi plebs ipsa, permittens inter sese officia per vices, diciturque democratia : 2. alicubi optimates, diciturque aristocratia : 3. alicubi potitur rerum unus solus, diciturque monarchia.*

769. *There is a threefold form of government; for in some places 1. the [commonalty] governeth the commonwealth, changing amongst themselves the offices by turns, and is call'd a democracy or state : 2. in other places the chief men rule, and it's called an aristocracy : 3. in other places one alone is supreme, and it is called a monarchy.*

770. *Circumvisamus urbem: ubi quæritur, ut habitari queat tutè, amœniter commodè.*

770. *Let us take a view of a city : where it is required that people may dwell safely, pleasantly conveniently.*

771. *Tutæ habitationi servit circummutatio; cum op-*

771. *Fortifications serves for safe dwelling: when on the outside the*
pidis

pidis extrorsum circumdantur *mœnia, fossæ, valla*, imò & *valli*: inter quos intervallum est, introrsum verò *pomœrium*, quâ civibus datur accessus ad munimenta: tandem locis editioribus *speculæ*, in quibus civici *excubitores* excubant, *vigilésque* vigilant.

772. *Portas* solent præmunire bipatientibus valvis, (& deinsuper impendentibus *cataractis*) obsepîrêque *pontibus* seu *stabilibus* seu *subductilibus*.)

773. *Amœnam habitationem* facit *amœnitas sitûs*, & *elegans prospectus* & *decoramenta turrium*; tandêmque *nitida inædificatio platearum*: nempe ut *primarii vici*, (habentes utrinque contiguas ædes) sint amplî; licet *juxtim transcurrentes angiportus*, sint ut plurimum angustî, & *impervii*.

774. *Auget gratiam*, si interiora domuum sint *pervia*, præstructis *porticibus*, ut pateat *siccus transitus* tempestate *pluviosâ*: *plateæ* verò ipsæ *stratæ lapidibus*, nè *ambulationes* sint *lutosæ*.

775. *Commodè habitatur urbs*, sita *loco salubri* (non ad *palustria*, *virus exhalantia*) & cui *bene prospectum* est *omni-*

towns are surrounded with walls, trenches, rampiers of earth, yea and palisadoes, between which there is a space: but on the inside a purlen, whereby the citizens have passage to the town-walls: lastly, in higher places watch-towers, in which the city centinels keep centry, and the watch-man watch.

772. They are wont to fence the gates with two-leav'd doors, (and moreover with portcullices hanging overhead, (and to secure them with bridges (either fast or draw-bridges.)

773. The sweetness of the situation, and a fine prospect, and the adornings of the turrets, & at length a neat building of the streets make it a pleasant dwelling: to wit, that the chief streets, (having on both sides houses joined together) be large; although the lanes [allies] crossing one another are most commonly narrow, and unpassable.

774. 'Tis more gratefull, if the houses be passable with pent-houses built before them, that there may be a dry passage in wet weather; but the broad streets themselves paved with stones, that the walks be not miry [dirty.]

775. A city is conveniently inhabited, being seated in a wholesome place (not neer fens, that breathe forth poison) and that is well furnished

bus necessariis; exempli gratiâ, publicis ædificiis & ultro affluente aquâ, & faciliè parabilibus victualibus, lignis, &c.

776. *Publica ædificia sunt; curia* pro conventu senatus; *prætorium*, pro exercendis iudiciis; (cum adstruëto carcere pro custodia delinquentium;) *ærarium & armamentarium*, pro asservando publico ære & armis; *scholæ*, pro exercenda juventute; *templa*, pro religiosis conventibus; tandem *balneæ*, diversæ pro diverso sexu; ubi lauturi exuunt vestimenta in apodyterio, custodienda à *vestispico*, ingrediunturque præcincti castulâ.

777. Dehinc sunt, *prochodochia*, receptacula mendicabulorum; & *nosocomia* ægrotantium; & *orphanotropeia*, pro enutriendis misellis pupillis, (aut exposititiis, sicubi probra ista fiunt;) & *hospitalia* (*xenodochia*) pro introducendis hospitibus peregrinis; atque *diversoria*, ubi advenæ diverant; vel etiam *popinæ*, ubi edulia semper reperiantur parata; sicut & *potulenta* in *cauponis & ænopolis*.

778. *Fora* debent plura esse in populosa ciuitate pro venalibus rebus; & distincta lo-

nished with all necessities; -for example sake, with publick buildings, and water coming in of it self, and victuals, wood, &c. easie to be had.

776. Publick buildings are; a court for the meeting of the senate; a town-hall, for pleading of tryals; (with a prison neer hand, for the keeping close of offenders :) a treasury and an arsenal, for keeping of the publick money and arms; schools, for the training up of youth; churches, for religious assemblies; finally, baths, several according to the several sex: where they that are to wash put off their clothes in the shifting room, to be kept by the keeper of the wardrobe, and they go in with an apron girded before them.

777. Next are, the receptacles of beggars, alms-houses; and of the sick, hospitals; and hospitals of orphans, for the maintaining of poor fatherless children, (or foundlings, if any such shamefull things be done any where) and guest-houses for the entertaining of foreigners; and inns, where strangers may lodge: or also victualling-houses, where meats may alwayes be found ready drest; as also drink in ale-houses and taverns.

778. There ought to be very many markets in a populous city for things to be sold; and distinct in places, cis,

cis, ut scias ubi quid quæras; nimirum alibi forum *pecuarium* (equarium, boarium, suarium;) alibi *olitorium*, *piscatorium*, *carnarium*, &c. alibi denique *scrutarium*, ubi scrutarii venditant scruta & ablecta; *mangones* autem interpolatas vestes, si quas circuitores vendere non possunt.

779. *Opificinæ* habentes aliquid sordium, aut strepitus, optimè locantur in suburbio; ut *lanienæ*, *ustrinæ*, sordescentesq; officinæ *cerdonum*, & strepitantes *fabrorum*: *cloacæ* verò & *foricæ* in recessibus platearum.

780. *Aqueductus* fiunt ab aquilege, seu per aperta incilia, seu per occultos canales, derivatos è montanis scatebris, & effundentes aquam hinc inde in *castella* (aquaria:) in defectu montanalis aquæ, fluvialis diffunditur machinis tractoriis; aut effodiuntur *putei*, circumdati oras crepidine; unde aqua hauritur situlis, (aut urnis;) sive uncino, sive girgillo, sive tolénone, sive antliâ, ubi nè quidem talium copia est, constituitur *cisterna* depresso loco, in quam pluviales aquæ confluunt per *collicias*.

that you may know where to look for any thing; to wit here a beast-market (for horses, oxen, swine;) there an herb-market, fish-market, flesh-market, &c.) finally in another place a rag-market, where the brokers sell their pelf [lumber] and rags; but scourers, clothes trimmed up again [new-turkized,] if they that go up and down cannot sell them.

779. Shops that have any filth or noise, are placed best in the suburbs; as butchers shops, forges, and the filthy stalls of cobblers, and the loud shops of smiths [farriers:] but the common draught-houses [jakes] and privies [houses-of-office] in by-corners.

780. Water-courses are made by the water-engineer, either by open trenches, or close pipes brought [convey'd] from mountain springs, and pouring out the water up and down into conduits: for want of spring-water, river-water is let out with drawing-engines; or wells are digged, the brink being surrounded with a verge; from whence the water is drawn with buckets (or pitchers;) either with a hook, or a screw, or a swipe, or a pump: where there is none of these to be had, a cistern is set in a low place, into which rain-water flows thorough gutters [spouts.]

Civilis societas.

Civil society.

781. Ut bene sit *urbicis* omnibus, opus est eos distingui in *ordines* certos; & assignari cuius certam functionem; provideri denique ut quisque agat sua, aut recorrigatur, si quid exorbitationum est.

782. *Ordo civium* est, quod alii sint *patricii*, oriundi claris prosapiis; alii *ephori*, cooperati in magistratum (sive suffragiis, sive subfortitione:) alii *plebs*, privata curantes; omnes fecernendi cognominibus familiarum, propriisque prænominibus & agnominibus.

783. *Primoſes* magistratum sunt *senatores*, invigilantes publicæ salutis; & *prætores*, vacantes litigiis componendis; *ædilesque*, inspectores publicarum ædium; & *tribuni plebis*, procurantes ut populus contineatur in bono ordine, & quodvis *collegium* intra limites suorum statutorum & privilegiorum.

784. Hi *tribuni* dividuntur aliqui in *duumviros*, *triumviros*, *septemviros*, *decemviros*, *centumviros*, &c. quorum officium est ferre plebiscita, (sed ut ea habeat rata senatus:) horum ta-

781. That it may be well with all that belong to the city, it is necessary they should be distinguish'd into certain ranks; and a certain duty appointed to every one; finally care be taken, that every one doth his own business, or be set to rights, if there be any thing amiss.

782. The order of citizens is, that some be noble, descended of gallant families; some governours chosen into the magistracy (either by votes, or lot:) others commons, taking care of private affairs; all to be distinguished by the surnames of their families, & their own Christen-names, and by-names.

783. The chief of the magistrates are senators, watching over the publick safety; and prætors [lord-mayors,] busied in composing quarrels; and the ædiles, overseers of publick buildings; and tribunes of the commons [sheriffs,] taking care that the people be kept in good order, and every company within the bounds of their statutes, and priviledges.

784. These tribunes are divided in some places into two, three, four, seven, ten, an hundred men, &c. whose office it is to make orders [acts] (but to be ratified by the senate:) yet the jurisdi-

men

men jurisdictio (duumviralis, triumviralis, &c) non est diuturnior, quam in duumviratu, septemviratu, centumviratu, &c. relinquuntur.

785. Dum senatus agit consessum—in curia (ubi album senatorium, & matricula civium, & civica acta asservantur;) consul (præsidens directioni annuatim, aut ei substitutus proconsul) proponit deliberanda; consulares viri sententias dicunt; syndici assidentes decidunt intricatos casus; notarii consignant conclusa. (N. B. Romani deligebant dictatorem in desperatis casibus, qui imperitaret absoluto arbitratu, quibus vellet, quicquid vellet.)

786. Opifices habent suas sodalitates, suasque curias, ubi novitius professus artificium, exhibet artis specimen curionibus, demumque in ordinem recipitur: infima plebs sunt mercenarii proletarii; multitudo.

787. Civium est, præstare sibi mutua officia; licet alius sit honoratior præ alio; aut magis privilegiarius, hoc est, immuniore censu & oneribus: (solent enim quidam indigenæ eximi; peregrini sunt vectigales, eorumque bona caduca.)

tion of these (of the two, three, &c.) lasts no longer, then they continue in the office of the two, (seven, hundred, &c.

785. Whilest the senate keep their sessions in the court (where the list of the senators, and the register-book of the citizens, and the city-records are kept;) the consul [major] (that yearly presides for direction, or the proconsul under him) proposeth things to be debated; the consulars give their votes; the recorders [town-clerks] sitting by make an end of difficult cases; the notaries set down the things concluded of. (The Romans in desperate cases chose a dictator, who might with absolute power command whom he would, what he would.)

786. Trades-men have their companies [corporations,] and their halls, where a young beginner professing the trade, gives a tryal of his skill to the masters of the company, and is at length taken into the society: the lowest sort are hirelings, and the rabble rout.

787. It is the part of citizen, to do courtesies for one another; although one be more honourable then another, or hath more priviledge, that is, be more free from tax and burthens (for some natives [home-born] are wont to be exempted; foreiners [strangers] are tributary [pay roll, tax, custome] and their goods are forfeit.)

788. Quando cives rare-
fiunt, admittuntur novi *muni-*
cipes : quando superabundant,
colonia emittitur aliò, ut ex
illis aliisque convenis, fiat
novum municipium.

789. Magistratum est vi-
dere nè respublica capiat quid
detrimenti: quod fieret, si per-
mitterent 1. quenquam civium
vivere otiose; neque advigilare
suis rebus: 2. aut *vestire se su-*
pra statum, aliòve luxu prodi-
gere patrimonium: 3. aut rur-
sum *facere quæstum malis arti-*
bus, & aliis præripere sua:
4. aut *tolerarent publica inhonē-*
stamenta, commestationes, po-
pinationes, ganeas, lupanaria,
labem juventutis: 5. aut *dis-*
tribuerent publicas functiones se-
cundum personas, non secun-
dum aptitudinem: 6. *connive-*
rentque ad omnia præpostera:
7. & non *sufficerent defunctis*
alios: 8. aut non *contri-*
buerent salaria iis qui mini-
strant publico.

790. Enimvero in bene con-
stitutis rebus publicis ad om-
nia sunt 1. *severæ leges* non fa-
cile novandæ, nedum temeran-
dæ, (ut sumptuariæ, & de præ-
tiis rerum, & manupretiiis, &c.
ut nè quis exlex, aut illex sit,
possitque defraudare alium;)

788. *when the citizens grow few,*
new denizens are taken in; when they
are too many, a colony is sent into
some other place, that of them and
other incommers, there may be made
a new corporation [borough.]

789. *It is the duty of magistrates*
to see, that the commonwealth re-
ceive no damage: which would be,
if they should permit 1. any of the
citizens to live idly, nor look after
their busness: 2. or to clothe him-
self beyond his state, or by other de-
bauchery to spend his patrimony:
3. or again to get's living by evil
courses, and to take from others their
own: 4. or if any should allow of
publick naughtiness, revels, riots,
carousing, brothel-houses, stews, the
corruption of youth: 5. or if they
should distribute publick offices
according to persons, not according
to their ability [fitness:] 6. and
wink at all disorders: 7. and should
not supply other in the rooms of those
that are deceased: 8. or not give
out salaries to them who serve the
publick.

790. *For in well-governed com-*
monwealths, for all things there are
1. strict lawes, not easie to be chan-
ged, much less broken (as those of
charges, and of the prizes of things,
& the wages for workman-ship, &c.
that none be outlaw or lawless, or may
defraud [cheat, cozen] another;)

& 2.

& 2. *iusta exequutio* in violatores legum, sine prosofoleptia: eoque 3. *anniversaria examina*, ubi quisque cogitur reddere rationem, qua ratione victum quærat: nè cui (suo malo) liceat esse otioso, aut in alios iniquo; aut exercere mendicitatem ostiatim: imò etiam magistratus ipse, si quem expilavir, *repetundarum* tenetur.

791. Nisi hæc observantur (inprimis autem ut juvenus rectè educetur) subnascitur indubitanter perturbatio rerum, furta, rapina, latrocinia, meretricia, mutuae oppressiones, pauperies, subversio denique tanto facilius, quanto republica fuerit populosior.

792. Specialis cura magistratuum est, in providendo communitati 1. de *sufficientia rerum*, 2. & *præsidii valetudinis*, 3. & *administranda justitia*: illud per mercatores, istud per medicos, hoc per iudices.

and 2. a just execution on those that violate the laws, without respect of persons: and 3. for that end, yearly examinations, where every one is compell'd to give an account, after what manner he gets his living: that none (to his ill) may be idle, or unjust to others; or beg from door to door: nay the magistrate himself if he hath wronged any one; is bound to make restitution.

791. Unless these things be observed (but especially that youth be rightly educated) without doubt there ariseth a disorder of affairs, thefts, rapes, robberies, whoredomes, mutual oppressions, poverty, at length destruction, by so much the easier. by how much the commonwealth is more populous [full of people.]

792. The special care of magistrates is, in providing the community 1. of the sufficiency of things, and 2. the support of health, and 3. the administering of justice; the first by merchants, that by physicians, this by judges.

C A P. LXXXV.

MERCATORES.

MERCHANTS.

793. Quia non omnis tellus fert omnia, debent homines communicare sibi sua bona, quæ superfluunt hîc, transmittendo aliò, & quæ deficiunt hîc, adsciscendo aliunde, tam-

793. Because every land doth not yield all things, men ought to communicate to one another their goods; those that abound in one place, by sending them over to another, and those things that are wanting here,

eti

etiam è transmarinis locis: cui negotiatione est nomen mercaturæ, occupatæ circa investitionem & ejectionem rerum; suo & reipublicæ bono.

794. Invehenda sunt (ope vestituræ & nadiculariæ) necessaria; quæ domi desiderantur, ut defectus sarciantur; & quæ supersunt evehenda, nè sine usu depereant: hæc est summa ratio mercimoniorum, exercenda facillimè in locis oportunis, maritimis puta, aut ad fluvios navigabiles sitis.

795. Diuturnus mos fuit, permutare merces ipsas, (cujusmodi submutationes necdum desitæ sunt usurpari:) postea dependebatur *infestum æs* (argentum, aurum) secundum indicta pretia rerum: tandem reperta est *moneta*, hoc est, æs signatū caractere valoris, quò procedat expeditiùs tum indicatio pretii, & licitatio, tum contractio, & solutio; nunc etiam cambiunt pecuniā per *collybum*, viā valde compendiariā.

796. Mercatores majoris nominis mittunt suas merces venundandas ad celebria emporia: sed *insitatores*, *tabernarii*, *nundinatores*, circumcursant

by fetching them elsewhere, although from beyond-sea-places: the name of which employment is merchandize, busied about the bringing in and carrying out of things, for the good of themselves and the commonwealth.

794. There are to be brought in (by the help of carriage and shipping) necessities; which are wanting at home, that the defect may be supply'd; and those that are over and above to be carried out, that they may not without use be spoil'd: this is the chief reason of traffick, which may be most easily exercised in places convenient, to wit, situated near the sea, or navigable rivers.

795. It was a long custome, to change [chop] wares (such changings are not as yet left off:) afterward brass (silver, gold) was weighed unwrought [bullion] according to the set prizes of things: at length coin was found out, that is, money marked with the character of the value, to the end that as well the setting of price and cheapning, as also the bargaining, and paying might the more readily proceed; and now they exchange money by bill of exchange, a very ready way.

796. Merchants of greater credit send their wares to be sold at famous marts [staple-towns:] but sale-men, shop-keepers, fair-keepers travel up and down from town to oppidatim,

oppidatim inque anniverfariis nundinis, aut hebdomadariis mercatibus, venum exponunt fua fub cadurcis, venditâq; involvunt cucullis: *propolæ* diftrahunt fua viatim, vicatim, angulatim, domesticatim.

797. Genus venditionis eft, cum res veneunt *auctione*: ubi venditor oftentat rem promercafem (circumverfando eam) circumfiftenti turbæ, & indicat, quanti liceat: tum aliquis emptorum *licitur*, alius *contrahitur*, auctando pretium; donec res addicatur pollicenti plurimum.

798. Sed quia fraudes interveniunt, oportet eſſe catum in mercando: quippe rari commercantium contenti funt lucello, pleriq; nimium quæſtum quærunt vendentes magni, quæ emerant vili; nè tamé ſibi res deprecietur, ejurant tantidém conſtare: aut impoſtor ſupponit merces æguſtas, obſoletas, ſitu corruptas, pro recentibus: aut adhibet meſuras fallaces, æroſa numiſmata &c.

799. Caritas annonæ ingraveſcit ſubinde, aut remittit, pro earundem abundantia, vel penuria: (rarum enim carum, & carum charum:) ſæpe tamen *monopolæ* in culpa funt,

town, and in yearly fairs, or weekly markets, under booths ſet out their wares to ſell, and being ſold fold them up in brown paper: pedlars ſell off their ware by the high-way-side, in the ſtreets, in corners, from houſe to houſe.

797. There is a kind of ſelling, when things are ſold by auction [port-sale:] where the ſeller ſheweth the thing to be ſold (by turning it up and down) to the people ſtanding round about, and tells them, what it is worth: then one of the buyers bids a price, another out-bids him, by raiſing the price; until the thing be aſſured to him that bids moſt.

798. But becauſe deceits intervene, one ought to be carefull in buying, becauſe few traders are content with ſmall gain, moſt of them get over-much, ſelling thoſe things dear, which they had at a low rate [cheap:] yet leſt their ware ſhould be undervalued, they ſwear it coſt them ſo much: or the impoſtor [cheater] counterfeits old, ſtale, moath-eaten ware, for new ones: or makes uſe of falſe meſures, braſs-money, &c.

799. The deareſt of proviſion grows high ever now and then, or is greater or leſs, according to the plenty or ſcarcity of it: (for that which is rare is dear, and that which is dear is choice :) yet oftentimes the

qui omnia præmercando & postea pro lubitu taxando, vexant communitatem, cui nunquam bene consulitur, ubi *monopolia* permittuntur.

800. Ubi res delibrata superponendo adaugetur, est *appendix*; si quid adjicitur, *maritissam* vocant: sed expendere liberaliùs, facit dispendia, quæ depauperant; parciùs, compendia, quæ opulentant.

monopolists are in fault, who buying all things up, and rating them afterwards as they please, vex the community; which never thrives, where monopolies are allowed of.

800. Where the thing weighed is increased with over-weight, 'tis call'd surplage; if any thing be added, they call it vantage: but to weigh out liberally, causeth waste, which maketh poor; sparingly, thrift, which maketh rich.

C A P. LXXXVI.

Medici cum pharmacopolis & chirurgis.

Physicians, with apothecaries and chirurgions.

801. *Accersi morbos intemperantiâ*, verum est: sed & hoc, vix quenquam posse vivere tam accuratè (in hac jam rerum corruptione) quin ægritudines obveniant.

801. It is true that diseases are got by intemperance; but this also, that scarce any one can live so exactly (in this corruption of things now) but sickness will happen.

802. *Medicus ergo prescribit sanis dietam*, ægris *pharmaca*.

802. Therefore the physician prescribes a diet to those in health, to the sick medicines.

803. *Dietam præscribit* (quæ est optima medicina, quippe securissima, & sine violentia) dum docet moderari cibum & potum, somnum & vigilias, repletionem & exinanitionem, corporis & animi commotiones, nè quid istorum admitatur ante naturale desiderium, nec extendatur ultra satietatem, nec adhibeatur aliter, quam expediat.

803. He prescribes a diet (which is the best medicine, because most secure, and without violence) while he teacheth them to moderate their meat and drink, sleep and watching, fulness and emptiness, the motions of body and mind; that none of them be entertain'd before natural desire, nor be extended beyond satiety, nor otherwise apply'd, then is fitting.

803. In-

804. Invisens ægrum, non aggreditur medicationem temerè, (ut solent circumforanei medicastri, & mulomedici: sed indagat prius morbi speciem, sedem, causas, non tantum ex relatione decumbentis (quâ parre quid doleat, &c.) sed ex aliis signis: nempe 1. ex *lesione functionũ*, (quæ demonstrat statum animalis facultatis:) 2. ex *arteriarum pulsu* (qui prodit, quomodo se habeat vitalis facultas: 3. ex *inspectione lotii* (quod detegit constitutionem naturalis facultatis.)

805. Deprehenso statu facultatum, instituit prognosin, sitne morbus lethalis, an salutaris, vel anceps: eoque præcognito, irremediabilem (imedicabilem) relinquit intactum; salutarem aggreditur medelis confidenter; ancipitem, nonnisi præfando eventus dubios; præsertim die critico, & anno climacterico.

806. Dum suscipit curam, ante omnia mitigat dolores certis mitigatoriis; & conservat naturalia, quæ videt superesse in ægotante (ut natura corroborata juvet propellere inimica sibi:) demumque insit oppugnare præternaturalia illa; jam diæreticis

804. *Visiting a sick body he doth not rashly undertake the cure (as quacksalvers and mountebanks are wont:) but first he enquireth after the kind, seat, causes of the disease, not only by the relation of him that is sick (in what part he ailes any thing, &c.) but by other signs: to wit* 1. *by hurting of the functions, (which shews the state of the animal faculty:)* 2. *by the beating of the pulses (which discovereth, how the vital faculty stand:)* (3. *by the viewing of the urine (which manifesteth the constitution of the natural faculty.)*

805. *Having apprehended the state of the faculties, he prognosticateth, whether the disease be mortal, or curable, or doubtfull: and that being fore-known, he gives him over that is incurable; him who is likely to live he takes in hand confidently; him that his disease is doubtfull, only with foretelling doubtfull events; especially on the critical day, and climacterical year.*

806. *When he taketh the cure in hand, first of all he mitigates the pains with certain lenitives; and preserveth the naturals, which he finds are remaining in the patient (that nature being strengthened may help to drive out those things which are contrary to her: and at last begins to set upon those præternaturals, one*

(sæpè enim magni morbi curantur solâ abstinentiâ & quiete,) jam *pharmaceuticis* jam *chirurgicis*.

807. *Dieta* reficit diminutas vires, non tantum moderatione alimenti & quietis, sed & externis fomentationibus & frictionibus, suffitûque.

808. *Pharmacis* profligat ea quæ molesta sunt: tum illa alterando, tum evacuando, tandem membra confortando.

809. *Alterantia* (remedia) sunt, quæ calefaciunt aut frigefaciunt, humectant aut siccant: tum verò ut peccans materia possit facilius educi, attenuat eam præparatoriis, vel incrassat, relaxat vel adstringit, emollit vel indurat, ut res postulat.

810. *Evacuantia* sunt, cum (per dejectionem) vomitoria & purgantia, & (per urinam) diuretica: tum sudatoria & sternutamentum cientia, ut & gargarismi, &c. quibus eliminantur exitiosi humores; *antidota* in quibus pelluntur peremptoria venena; & *amuleta*, quibus depelluntur fascina.

811. *Roborantia* sunt, quibus aliquod membrum peculiariter confortatur: ut pe-

while with diets (for oftentimes great diseases are cured only by abstinence and rest) now and then with physick, now and then with surgery.

807. With diet he recovers enfeebled strength: not only by the ordering of food and rest, but also by outward fomentations and frictions [chafings,] and strong smells.

808. With medicines he drives away those things, which are offensive as well by altering them, as also by emptying them, at length by strengthning the limbs.

809. The altering (remedies) are those which heat or cool, moisten or dry: but then that the peccant humour may the more easily be drawn forth, with preparatories he thins it, or thickens it, he loosneth or bindeth it, he softeneth or hardneth it, according as there is occasion.

810. The emptying are, both (upward and downward (by seige) vomits and purges, and by (urine) diureticks: and also those that procure sweat, provoke sneezing, and also gargarismes, &c. by which hurtfull humours are driven out; also antidotes, by which deadly poisons are expell'd; and amulets [spells,] by which witchcrafts are driven away.

811. The corroborating are those by which any part is peculiarly comforted: as the breast with pectorals,

ctus

etus thoracis, cordiacis, ventriculus stomachicis, jecur hepaticis, lien splenicis, renes nephreticis, articuli artbriticis, &c.

the heart with cordials, the stomach with those for the stomach; the liver with those that are good for the liver; the spleen with those for the spleen; the kidneys with those for the kidneys; the joints with those for the joints.

812. Invaletudine profligatâ, sanitatêque recuperatâ, medicus celebrat *sotéria* cum revalescente & ab illo remuneratur *sotris*: sed restitutio semiperfecta (dum quis non integrè convalescit, etiamsi sentiat se revelatum) facit *valetudinarium* aut obnoxium infirmitatibus; aut quod *pejus clinicum*; aut (quod pessimum) illidit in *recidivam*, penissimè affligentem.

812. The distemper being driven away, and health recovered, the physician celebrateth with the party recovered the *feasts* of recovery, and is rewarded by him with fees: but a cure half-wrought (whilst one is not quite well, although he find himself somewhat eased) maketh one sickly [*crazie,*] or subject to infirmities; or (what is worse) bedrid [to keep ones bed;] or (what is worst) throws him into a relapse, bringing him to death's door.

813. Utuntur (medici) in suis præscriptionibus (quas vulgò receptas vocant) notis talibus: *℞* *recipe*; *℥* *libram*; *℥* *semis*; *℥* *unicam*; *℥* *drachmam*; *℥* *scrupulum*; gr. *granum*; g. *guttulam*; p. *pugillum*; m. *manipulum*; ana, de *singulis tantundem*, &c. Vocant autem id *basis*, quod *primarium* est inter ingredientia, reliqua *adjuvantia* & *corrigenia*.

813. Physicians use in their bills, (which they commonly call receipts) such like marks: *℞* take; *℥* a pound; *℥* half a pound; *℥* an ounce; *℥* a dram; *℥* a scruple; gr. a grain; g. a drop; p. a pugil; m. a great handfull; ana, as much of each, &c. but they call that the *basis* [ground] which is the chief among the ingredients, the rest, to help and correct it.

814. Juxta quas formulas *pharmacopœus* præparat medicamenta in laboratorio, includitque liquida vitreis guttis, & ampullis; arida ligneis

814. According to which forms the apothecary prepares [gets ready] medicines in the laboratory, and putteth up the liquid ones in glasses and vials; the dry ones in drawers and

capsellis & pyxidibus; reliqua fictilibus seriis ac fidelis, vel stanneis lagenis; & circumponit per repositoria, adscriptâ cuius suâ nomenclatione.

815. Comportat verò medicamentariam materiam undecunque, ut nec aversetur ipsa rerum excrementa, imò toxica (quippe nihil est quin contineat aliquid medicamentosi;) potissimam tamen partem desumit ex herbis, ideòq; oportet esse *botanicum*.

816. Grægales horum *chymici* parant non promiscuè quasvis medicinas, sed solummodo spirituosas; extrahendo intimas essentias rerum: quia profundiores vires tenaciorum rerum non patiuntur separari, tundendo aut macerando; exugendæ sunt vi ignis; convertendæque aut in *spiritum & oleum*, distillando; aut in *flores*, sublimando; aut in *sal*, calcinando.

817. Quibus operationibus eliciuntur primò *decocta & succi*, fluidæ medicinae; secundo, *balsama, extracta, tincturae*, molles; tertio *pulveres & craci, m-gisteria & crystalli*, sicca; ex quorum mistura porro parantur compositæ medicinae quam plures, intus vel extra usurpandæ.

boxes; the rest in gally-pots and jugs, or pewter pots: and setteth them round the shelves, writing on every one it's name.

815. But he gathereth his medicinal stuff [drug] from every place and thing; so that he doth not loath the very excrements [refuse] of things, nay poisons (for there is nothing but contains something of medicine:) yet he taketh the chiefest part from herbs, and therefore he ought to be a herbalist [simpler.]

816. Chymists that are of their gang, do not prepare all sorts of medicines promiscuously, but those only which are spirituous; by extracting the most inward essences of things: because the more deep virtues of clingy things do not endure to be separated by pounding or steeping; they are to be fetched out by the force of fire: and to be turned either into spirit and oil, by distilling; or into flowers, by sublimating; or into salt, by calcining.

817. By which operations are got out, first decoctions and juices, moist medicines: secondly, balsams, extracts, tinctures, soft ones: thirdly, powders and saffrons, magisteries and chrystalls, dry ones: by the mixing [mingling] whereof many compound medicines are further prepared, to be applied [taken] inwardly or outwardly. 818. Ii-

818. Intus sumuntur *julebi*,
conditi melle & saccharo ; &
syrupi & linctus, julebo pau-
lo concretiora , utraque ta-
men fluxa ; tum *electuaria*,
conserve, *theriaca & varia con-*
*dit*a , *mollicula* : deinde *con-*
fecta, *pilulae*, *pastilli* (*rotulae*)
& *orbiculati trochisci*, *conqua-*
drataeque morsule, &c. *solida*.

819. A foris applicantur
corpori *linimenta & unguina*,
mollicella, *cerota & emplastra*,
spissiora ; oculis , *collyria* ;
dentibus , *dentifricia* ; ventri,
fomenta ; ano , *clysteres & sup-*
positoria.

820. *Chirurgus* commodat
manum suam medico, ubi me-
dendum est ferro & igne: nem-
pe secans phlebotomo venas ;
exsecans autem verrucas, ali-
asque excrefcentias ; & ape-
riens abscessus ; & radens of-
sa scabra ; limansve promi-
nentia ; ferransve emortua ; aut
perforans (ob subrus latens
pus ,) perurens denique pu-
tridas carnes cauteriis, susci-
tansque *fonticulos* causticis me-
dicamentis, ad erivandum hu-
mores pravos.

821. Idem reponit suis lo-
cis membra luxata , aut pro-
lapsa ; intorta verò , curva ,
gibbosa , reducit ad nativam

818. *Inwardly are taken julebs* ;
seasoned with honey and sugar ; and
syrups and licked medicines,
(*somewhat thicker than a juleb*,) yet
both fluid ; then electuaries, *con-*
serves, *treacle*, and *several confe-*
ctions, *somewhat soft* : then *con-*
fects [*comfits*,] *pills*, *balls*, *rolls*,
and *roundish trochisks*, and *lozen-*
ges squared, &c. *solid ones*.

819. *Outwardly are applied to*
the body oils and ointments, being
softish, *cere-cloths and plaisters*,
more thick ; to the eyes, *eye-salvs ;*
to the teeth, *dentifrices* ; *to the belly*,
pultesses ; *to the fundament*, *gly-*
sters and suppositories.

820. The *chirurgion lendeth*
his hand to the physcian, when any
thing is to be cured by steel or fire :
namely opening veins [*letting blood*]
with a fleam ; cutting away warts,
and other excrescencies ; and opening
impostumes ; and *scaling ragged bones* ;
or filing those that stand out, or *saw-*
ing off those that are dead ; or *boring*
them thorough (*because of the filth*
enclosed within) *lastly*, *burning the*
putrified flesh with hot irons, and
making issues with burning medi-
cines, to *drain away the evil humors*.

821. He also *setteth again limbs*
put out of joint or dislocated ; and
reduceth those that are bent, *crook'd*,
hurched to their native shape : he

figuram ; eximit è *vulneribus* festucas , tela , & alia forinfecus illapfa ; coadunátq; *labra vulnerum* futurâ ; consolidat *offa fracta* inductione calli ; adhibens (ubi opus est) deligationem , quæ fit fasciatione spleniorum , interdúmque circumligatione asserculorum .

draweth out of wounds splinters , arrow-heads , bullets , and other things that slip in from without ; and closeth the lips of the wounds with a seam ; he consolidates broken bones by drawing over a hard skin ; making use (when there is occasion) of binding , which is done by swathing of collers ; and sometimes by tying about of splints .

C A P. LXXXVII.

Judices : cum judicio processu , criminalique executione .

Judges : with judicial proceeding , and criminal execution .

822. Incolumitas reipublicæ conservatur administratione judiciorum ; quâ sola constat sua securitas cuique , dum violentiæ sistuntur , & animadvertitur in violatores : ad minimum enim protestari licet adversus omnem usurpatore alieni , & provocare ad jus-

822. The safety of the commonwealth is preserved by the administration of judgements : in which alone every ones security consists , whilst abuses are stopped , and the abusers punished : for we may at least protest against every usurper of another man's right , and appeal to the law [take the law of him .]

823. Forma judicii est triplex , 1. per *amicabilem transactionem* ; 2. per *judicialem processum* ; 3. per *rigidam executionem* .

823. The form of judgement is threefold , 1. by a friendly transaction [composition ;] 2. by a judicial process [trial at law ;] 3. by a severe execution .

824. Amicabiliter componuntur controversiæ inter partes ; ipsas rariùs immediate sepiùs interveniente tertio : sive ultro seipsum interponente , sive delecto , in quæ & compromittunt utrinque acquieturos esse arbitrio ejus ; arbitrio

824. Controversies are friendly decided between the parties themselves ; more seldom immediately , more often by the intervening of a third : whether putting himself in of his own accord , or chosen [made choice of ,] to whose award they engage on both sides to stand : they call

trum vocant, & *arbitrarium judicium*.

it an arbitration [reference,] and an arbitrary judgement.

825. Si non allubescunt pacifica media, & collibet experiri jure, sectantur forum: ubi judex præsidet armatus auctoritate publicâ, instructusq; ministeriis apparitorum, accensorum, præconum; exercens judicia die fasto, abstinens nefasto.

825. If they like not of peaceable means, and are resolv'd to try it out at law, they attend the court: where the judge sits armed with publick authority, and furnished with the services of pursivants, serjeants, cryers on a court-[leet-] day, forbearing on a non-leet [court-] day.

826. Actor, aut in jus rapit reum notoriè improbum, petitque decîdi causam summario processu, (de simplici & plano;) aut acturus juridico processu per *causidicos*, scribit dicam eidem reo, postulans eum arcessi in jus; (sunt enim formulæ ad omnia constitutæ.)

826. The plaintiff, either haleth into the court the defendant as a notorious offender, and desireth the cause to be decided by a summary process (of right and plain) [by inditement;] or acting after a judicial process by lawyers, he commeth a suit against the same defendant, requiring him to be summoned into the court (for there are appointed forms for all cases.)

827. Ergo reus citatur, vel ad tribunal prætoris, vel subsellia scabinorum, tanquam inferiorum judicum: qui aut prætendit clausulas, ut declinet forum legali exceptione; aut se sistit indictâ die; seu per se, seu per suum *procuratorem* (mandatarium.)

827. Therefore the defendant is summoned either to the mayor's court, or the sheriffs, as inferiour judges: who either pretendeth petty excuses, that he may decline the court by a legal exception; or makes his appearance at the set day; either by himself or his attorney.

828. Tum perficitur accusatio & excusatio; accusato aut fatente, & excusante objectam culpam aut diffitente: atque tum producuntur probationes, per testes juratos, si non sufficiat auctoritas earum-

828. Then is finished the charge and reply; the accused party either confessing [pleading guilty,] and excusing the fault laid to his charge, or denying it: and then proofs [evidences] are produced [brought forth,] by sworn witnesses, if their authority

dem,

dem, & assertio nuda: sed jurandum præscribitur verbis conceptis, nè jurator eludat per equivocationem.

829. Si causa non potest definiri illico, vadantur litigatores, ut compareant ad præfinitum diem; datisque vadibus, licet utrique parti vadere, & instruere suum advocatum, ut quisque sciat tueri causam clientis sui.

830. Incorrupti judicis est, 1. non admittere clancularias delationes, sed delatores compellere, ut aperte agant 2. non prolatare causas, sed insistere; 3. non sufferre perplexationes & sycophantias, sed inclamare; 4. vitareque præjudicia, nec propendere favore aut odio, huc vel illuc; 5. aut corrupti largitionibus; 6. sed discernere simpliciter, secundum probatorum evidentiam, causarumque merita; absolvendo *infontem*, damnando *fontem* (etiam ad refusionem expensarum litis) nè protervia maneat impunita, sed ut luat qui peccavit.

831. Antequam sententia definitiva fertur, præses requirit vota *assessorum*, ratumque habet; decreta communi consensu non retractans nec rescindens.

and bare word be not sufficient: but the oath is set down in set words, lest the swearer should elude by equivocation.

829. If the cause cannot presently be ended [made an end of,] the parties give security to appear at such a day: and security being given, both sides may depart, and instruct his advocate [counsel,] that every one may know how to defend his client's cause.

830. It is the part of an uncorrupt judge, 1. not to admit of private informations, but compell the accusers to deal openly: 2. not to prolong causes, but to be speedy: 3. not to suffer vexatious suits and knaveries, but cry out on them: 4. and to avoid prejudices, neither to hang on this side or that for favour or malice: 5. or to be corrupted with bribes: 6. but simply to give sentence, according to the evidence of proofs, and the merits of causes; by acquitting the innocent, and condemning the guilty (even to the payment of the costs and charges of the suit,) that troublesomeness may not go scot-free, but that he who hath offended may suffer.

831. Before the definitive sentence is given, the judge requireth the votes of the rest of the bench, and ratifieth them; not retracting or annulling things decreed, by common consent.

832. Pro-

832. Promulgatâ decisione causæ, *exequutio* fit ocys; nisi dilatio impetretur intercessione alicujus, aut pars condemnata petat recognitionem causæ; aut denique appellet ad *judicium* superiùs, quali casu locus est *justitio*, & *comperendinationi*, aut etiam *sequestrationi*: at quod superior *judex* decreverit, imponit finem controversiæ, nec *vitiligratores* impunes relinquantur.

833. Manifestariis prævaricatoribus infliguntur atroces pœnæ, ut alii deterreantur à sceleribus; ubi licitor rapit, loris ligat, vinculisq; vincit, sceleratos nebulones; injiciens manibus *manicas*, pedibus *compedes*, collo *numellas*, & detrudens aliquos in *ergastula*, ubi compediti exsequantur servilia opera; alios rursus exponens spectaculo, erectis in propatulo cippis; alios tradens carcerario custodiendos in carcere, & enervandos fame, squalore, & pedore.

834. Enormes malefici traduntur *carnifici*, subjiciendi tormentis: hoc est, imponendi *equileo*, & prægravandi ponderibus, aut distringendi

832. The deciding of the cause being published, execution is immediately served, unless a forbearance be obtained by the intercession of any one, or the party condemned desireth a recognizance of the cause; or finally appeal to a higher court [power] in such a case there is place for the staying of a suit, and an adjourning it, or also putting it to indifferent persons to end: but what the higher judge doth decree, setteth an end to the controversy, nor are wranglers unpunished.

833. On notorious false-accusers severe punishments are inflicted, that others may be frightened from wickedness; where the executioner hales away, ties with cords, binds with bonds villanous rogues: fastning manacles on their hands, shackles on their feet, pillories on their necks, and thrusting some into houses of correction, where being fetter'd they may perform their drudgery; others again exposing to publick view, setting up stocks openly; delivering others to a goaler to keep in prison [goal,] and to be mortified with hunger, nastiness, and stink.

834. Lawless malefactors are deliver'd to the executioner, to suffer torments: that is, to be set on the rack, and to be pressed with weights, or to be stretch'd with strap-

fidicu-

fidiculis, distorquendique, ad-
aurendi, & sic cruciandi si ne-
lint confiteri citra torturam,
notoria propemodum: ut in
confessos demum supplicium
constituatur juxta promeritū.

835. *Scorta & scortatores*
cæduntur virgis & flagris: im-
pudicis *prostitulis* inurantur
stigmata; ut & *proditoribus* ac
falsariis: *saccularii*, *abigei*, *pe-
culatores*, mutantur fustibus
aut muleta; vel strangulantur
suspendio, in patibulo suspen-
si: alicubi & furum complices
(qui surreptas res clanculum
receptant) æquiparantur com-
pilatoribus ipsis, afficiunturq;
æquali noxâ.

836. *Atachi*, *raptores* (ef-
fractores) *plagiarii*, *homicidæ*,
& *læsæ majestatis rei*, decol-
lantur: *latrones*, *sicarii*, *pira-
te*, *sacrilegi*, *crurifragio* ple-
antur: sed olim affigebantur
cruci (seu furcæ;) *parricidæ*
verò, *fratricidæ*, *infanticidæ*,
insuebantur cum serpente cu-
leo, aquisque merfi suffoca-
bantur: *principium interfecto-
res* discerpuntur quadrigis in
diversum actis, bona verò il-
lorum confiscantur, aut publi-
cantur: *incendiarii*, *sagæ* & *ve-
nificæ*, cremantur super ro-

padoes, and to be tortured, scorcht,
and so tormented, if they will not
confess without torture, such things
as are almost notorious; that at length
punishment may be inflicted on those
that confess according as they deserve

835. Whores and whoremasters
are beaten with rods and whips: *shameless strumpets* are stigmatized
[branded, burnt in the forehead;] as
also runnagates and cheats: cut-
purples, stealers of cattel; pilfer-
ers, are punished with clubs, or a
fine, or are strangled, being hang'd
on a gibbet [gallows:] in some places
also the compliants of thieves (who
receive stolen goods) are made equal
to the thieves themselves, and un-
dergo the same penalty.

836. Adulterers, robbers,
(breakers of houses,) spirits, mur-
therers and traitors, guilty of
high treason are beheaded; high-
way men, cut-throats, pirats,
robbers of churches, have their
legs broke: but heretofore they were
fastned to a cross (or fork;) but par-
ricides, fratricides, murderers
of children were sown in a bag with
a serpent, and being plung'd into the
water were stifled: the murderers
of princes are torn limb-meal by
chariots driven several wayes, but
their goods are confiscated, or pu-
blickly set to sale: incendiaries,
forceresses, and witches, are burnt;

gum;

gum; blasphemæ elinguantur.

blasphemers have their tongues pull'd out.

837. *Calumniatores maligni, obrectatoresque, & qui libellis famolis, anonymè scriptis, immerentes ignominiosè traducunt, itemque convicti perjurii, mutilantur aliquo membro: aut condemnantur ad ad metallifodinas, vel ad trices; aut exterminantur; hoc est, proscribuntur, relegantur cum infamia, seu in locum certum, exiles dicendi; seu ad vagandum extorres: ut sic etiam respublica liberetur purgamentis suis.*

837. *Malicious slanderers and backbiters, and those who with infamous libells, written without any name to them, ignominiously defame those that deserve it not; and those that are convicted of perjury, are maimed of some member: or are condemned to the mines or to the galleys; or are exterminated, that is, are proscribed, sent away with infamy; either to a certain place, and then they are call'd exiles; or to wander up & down, and then they are vagabonds: that so also the commonwealth may be rid of it's filth [off-scouring.]*

C A P. I. XXXVIII.

Ritus recreationum.

The fashions of recreation.

838. *Ut nè fragiles vires labascant aut elanguescant, cessatur quandoq; à seriis, daturq; aliquid temporis ludicris: quæ defatigatos oblectent spectatione, aut vegerent commotione, aut refocillent concertatione; quæ tria genera vacationum lusoriarum, quidni etiam cursim speculemur?*

838. *That our frail strength may not decay or grow faint, we now and then leave off our serious business, and some time is bestowed on playes [sports:] which when we are weary, delight us by sight [show,] or quicken us by motion, or refresh us by striving together: which three sorts of sportfull vacations, why should we not also view in passage?*

839. *Præstigiatores faciunt spectacula non injucunda vulgo: perstringunt aciem oculorum mirâ volubilitate gesticationum, ut miracula putentur, cum tamen res per-*

839. *Juglers make sights not unpleasant to the common people; whilst they dazle their eyes [cast a mist before them] with a strange nimbleness of doing their tricks, that they are thought miracles, when nevertheless*

agatur

agatur pernicitate : nec non *funambuli*, non ambulantes solum super fune extenso in sublimi, sed & subsultantes cum strictis ensibus (papæ quàm audaces !) dum sese librant haltere manibus gestato : itemque *larvati ludiones*, similesque *circulatores*.

840. *Scenici ludi* præbent spectaculum plausibilius : ubi in theatro historicè representantur quædam memoranda antiquorum gesta; idque ab *histrionibus*, vel *personatis mimis*, prodeuntibus è sipario in proscenium : si argutè, applauditur illis; si infcitè, exploduntur, & exhibantur.

841. *Actores* hîc sunt, vel *comædi*, dum comœdia agitur, exhibens res variè turbatas, sed cum læta catastrophe : vel *tragædi*, dum tragœdia, cum læto principio, sed tristi exitu : utroque est *prologus*, & quatuor aut quinque *actus*, quilibet divisus in aliquot colloquendum *scenas*, primariique spectatores confident in *orchestra*; *cavea* relinquitur promiscuæ plebeculæ; præteritum tamen poscitur ab his & illis.

842. *Commovendo* se quærant redintegrare vires, qui sese exercent *cursum*, *saltu*, *ja-*

the thing is perform'd by sleight of hand; & also dancers on the ropes, not walking only upon a rope stretcht forth on high, but also leaping with naked swords (wondrous bold) whilest they poize themselves with a pole held in their hands : and also mummers with visards on, and such like gypsies.

840. Stage-plays afford a more plausible sight : where on a theatre some memorable deeds of the ancients are historically represented; and that by players, or actors in habits, coming forth of the tiring-room upon the stage : if handsomely, they are applauded; if filily, they are stamped at, and hissed off the stage.

841. The actors here, are either comedians, while a comedy is acted, presenting passages variously disturbed, but with a merry come-off; or tragedians, whilest a tragedy is acted, with a cheerfull beginning, but a sad end : in both there is a prologue, and four or five acts, each being divided into some scenes of persons talking together, and the chief spectators sit together in a gallery [boxes,] the pit is left at random for the rabble; yet money is required of one and t'other.

842. By moving [stirring] themselves they seek to recruit their strength, who exercise themselves in *stature*,

statu, luctatu, pugilatu, equitatione, vectitatione, pilâ item, similibusque commotiunculis.

843. *Cursu* : qui superventur in glacie ; aut sibi designando lineam ; simul ac eam attigerunt, proutinus consistunt ; & qui ultra eam procurrerit, aut citra eam subterit, perdit ludum : imprimis autem illi *cursores* qui cursu contendunt in *stadio*, incipientes cursuram à *carceribus*, & inter cancellos decurrentes ad *metam*, ubi quilibet laborat prævertere ceteros, primus tamen solus reportat *brabeum*, ab affidente *brabeuta*.

844. *Saltatores*, ad modulos *choraulæ*, ductusque *choragi*, (seu *præsultoris*) ducunt *choreas*, varia circumgyratione, & tripudiant.

845. *Jaculatores* jaciunt in porrectum ante se, vel evibrant in auras, *discos*, & alia *missilia*, vel collimando ad præfixum scopum, contendunt eum tangere (ferire.)

846. *Luctator* nititur prosternere colluctatorem medio prehensum in agone ; sed ille reluctando renititur affligere ipsummet : ubi supplantare artis est, recellere, risus.

running, dancing, hurling, wrestling, fencing, casting a bar, and also ball, and such like exercises.

843. In running, they who slide on ice ; or by appointing themselves a line ; as soon as they are come at it, presently they stand still, and he that runs beyond it, or comes short of it, loseth the game : but chiefly those runners, who run a race, setting forth at the starting place, and running within the rails to the goal ; where every one striveth to get before the rest, yet the first only carrieth away the prize [wager,] by judgment of one that sits by.

844. Dancers, according to the tunes of the minstrel, and guidance of the fore-man [leader of the dance,] dance figure-dances with several turnings, and fetch capers.

845. Casters [darters] cast [throw] forward before them ; or hurl into the air quoits, and other flinging things, or by aiming at a set mark, they strive to hit it.

846. The wrestler endeavoureth in the wrestling place [ring] to sling him that wrestleth with him, taking him about the middle [waste,] but he by struggling against him labours to throw him : where to trip is good play, to give the hug, good sport.

847. *Pugi-*

847. *Pugiles congregiuntur duello, in palæstra cæstibus, gladiatores gladiis, decertantque sub directione laniæ, dimicatione gladiatoria: ubi alter ictum infert, alter excipit, inhibet, propulsat; vincit autem qui infligit: andabata pugnaturi pugnis, committebantur perridiculo certamine, prævelaris oculis.*

848. *Equestre ludicrum est, cum equis frenans equum injecto lupato, mulcensque poppyimis, docet ex arte gradi, salire, converti, sessorémque molliter gestare; aut cum desultor transultat de equo in equum, mirâ celeritudine.*

849. *Ludus pilæ fit expulsum & datatim (in sphæristerio vel alibi:) cum cum alter mittit, alter excipit & remittit: sive sit pilæ paganica, pilis facta, & percutienda ferulâ, sive pilæ palmaria (harpastum) repellenda palmo, aut reticulo; sive pilæ pugillatoria ære distenta (follis) reverberanda pugno.*

850. *Addamus Iusionibus motoriis pueriles istas: diffugium, quò se fugitant & captitant; myindam (latebram vac-*

847. *Champions fight a duel, in the fighting-place with whorlbats, fencers with swords, and play their prize by the direction of a master of defence, at sword-play: where one strikes, the other receives, stops, puts aside the blow; but he gets the better, who lays it on: the winking fighters being about to fight at fist-cuffs, were set together by the eares in a simple combate, blind-fold [hood-wink.]*

848. *The riding sport is, when a groom bridling a horse, putting a snaffle into his mouth, and making him gentle with whistling, teacheth him according to art to pace, leap, wheel about, and carry his rider gently, or when a vaulter leapeth from horse to horse, with a wonderful quickness.*

849. *The play of ball is by tossing and giving (in a tennis-court or elsewhere:) when one serveth it, the other taketh it and serveth it again: whether it be a soft ball, stuffed with hair, and to be struck with a goff-stick; or a hand-ball (tennis-ball) to be struck with the hand or racket; or a blown-ball filled with wind (a bladder,) to be beaten back with the fist.*

850. *Let us add to moving sports those childish ones; prison-base [tig,] where they run and catch one another: whoop-all hid, or hide and*

(æ,)

ex,) quâ se abscondunt & seek, where they hide and seek one another; *oscillationem*, quâ se agitant à petauro : *incessum* themselves to and fro on a swing : *grallatorium* divaricando gressum super grallas : *ejacula-tionem globorum* in scrobiculos; [pitholes :] nine-pins, throwing a bowl to strike down the pins : whipping the top with a scourge; shooting of bird-pellets out of an elder glandis è sambuceo scelopô, &c. gun, &c.

851. Concertamen fit, ludendo par, impar, & micando digitis; & certando *enigmatibus* & captatoriis quæstionculis : tum *fortilegiis*, ut in alea, ubi tali (tessere) immixtuntur per fricillum (sed hoc est ferè aleatorium;) aut ubi certatur sorte & arte, ut in ludo *calculatorum*, & lusoriis *chartis* : vel denique solâ arte, ut in ludo *latrunculorum* ingeniosissimo omnium.

851. An exercise is made by playing at even or odd, and by shaking the fingers; and by drolling [asking riddles,] and witty questions: then by lotteries, as in dicing, where the dice are stung out of a box (but this is for the most part the way of dice-players;) or when they strive with lot and art [good play,] as in tables, and cards; or lastly with art alone, as in chess-play the most ingenious of all.

852. Ludendum autem est, ut delectabile sit, cum coæ-taneis & comparibus, idque cum sponsione : at non in res magnas; ut sit citra inquietudinem & sollicitudinem : (qualiter fit, cum luditur pro sustinendo talitro vel alapa, vel pro evacuando *Jobypho*) & cum bellis collusoribus, qui te non deludant, aut conturbent felicitatem jurgiis, devotioni-

852. But we must play, that it may be delightfull, with those of the same age and our equals, and that with a stake; but for no great matter, that it may be without trouble and care : (as it is when we play for a fillip or box o' th' ear, or to drink off a cup) and with fair gamesters, who will not cozen [cheat] you, or disturb the sport with railings [scoldings,] curses, or obscene speech : but

bus, obscœnitatibusve : sed locus quoque dandus est diludicis, ut garras eum congeronibus.

there is time to be given also between games, to talk with your companions.

C A P. LXXXIX.

Convivales ritus.

The rites of feasts.

853. *Congressus oppidanorum convivales* non sunt præterendum, quatenus instituuntur vicinalis amicitiae causâ : sive magis privatè, ad compotationem, vel concœnationem, ubi estur de collatis symbolis ; sive magis publicè, ubi quis opulentior instituit convivationem, occasione lustrici diei, vel aliæ : sive cum meriti de republica singulariter, excipiuntur quandoque publico sumptu, lauto convivio.

853. The meetings of townsmen at feasts are not to be passed by, for as much as they are instituted for neighbourly friendship ; whether more privately, to drink together, or eat together, where they eat at a club or collation ; or more publicly, where one rich man makes the entertainment, upon occasion of a Christening-day, or otherwise : or when they that have deserved of the commonwealth singularly, are entertained sometimes at the publick charge, with a costly banquet.

854. Quando convivandum est, *archimagirus* tradit coquas apparanda esculenta, coempta per *obsonatorem*, aut subministrata à *promocondo* : trichini curæ est *architriclino*, ut mensæ tapetibus insternantur per trichinarios, supersternanturque mappis decenter extensis ; tum *disci* circumponuntur (sive sint orbes, sive quadræ,) cochleariæque & *salinum* apponuntur & *collyra*, panis deprompti é canistro, aut scissæ buccæ.

854. when there is a feast to be, the head-cook delivereth to the under-cooks meats to be dressed, bought up by the caterer, or given out by the butler : the steward takes care of the dining-room, that the carpets be laid on the tables by the chamberlains, and the table-cloth neatly spread ; then the plates are laid (whether they be round trenchers or square,) and the spoons and salt-cellar are placed, and loaves [rolls] of bread taken out of the basket, or slices cut.

855. Demum *fercula* infe-

855. At length the messes are served up,

feruntur, in patinis & lancibus; & *embammata* destituuntur in patellis (scutellis) convivium enim quò magis opiparum est, eò habet lautiores epulas, variæque pulpamenta, imò & diversos missus.

856. Invitatos convivas, venire temporius quàm seriùs, civilius est: quos convivator excipit amicâ obviamitione, & introducit: cùmque abluerunt manus super malluvium è gutturio, aut super pulvim (seu pollubrum) ex aquali (urceolo,) transferuntque mantili mundo (inquinatum præbere incivile foret,) assidunt juxtim per disposita sedilia (olim mos erat occumbere.)

857. *Structor* deartuat appositas dapes scitè, ac deservitur: *præguſtor* præguſtat potiones, aut propinat promulſidem, quam prælibant discumbentes: adſtante, qui abigit muscas, *muscario*, nè sint infestæ epulantibus, aut illabantur epulis.

858. *Eduſiorum* printa sunt *obſonia*; (*juscula*, *pulmenta*, *ova ſorbilia*, &c.) non lambenda exſertâ linguâ, sed ſorbenda cochleari: cætera exinnuntur furculis, & conſcinduntur cultris, præhenſis manubrio..

brought in, in dishes and chargers; and the ſawce is left in ſawcers [pottingers:] and the feast by how much the more sumptuous [costly] it is, the more delicate dishes it hath, and several hichshams, nay and divers courses.

856. It is more civil for the invited guests, to come sooner then later: whom the master of the feast receiveth with courteous going out to meet them, and leads them in: and when they have washed their hands over a basin out of an ewer, or over a bowl out of a water pot and wiped them with a clean towel (to offer a fount one would be unbecomil,) they sit down by one another upon the stools being set in order (it was a custome heretofore to lie down.)

857. The carver neatly cuts up the dishes set before him, and helps [serves] them: the taster tasteth the drinks first, and drinketh the first cup; which the guests pledge; one standing with a flie-flap, who drives away the flies, that they may not trouble the guests, or light on the meat.

858. Of meats the first are spoon-meats; (broth [portage,] gruel, potched eggs, &c.) not to be licked with the tongue put forth, but to be supped up in a spoon: the rest are taken out with forks, and are cut with knives, held by the handle [haft.]

859. Bene morati ingerunt bolos ori moderatim, non injectant; comedunt marfitando, non glutunt tuburcinando; nè postea rudent, aut singultiant, neque lingunt labia, sed detergunt mappulâ, si perungantur.

860. Interim potoria vasa depromuntur è repositorio, prolutâque reponuntur in abaco: & dum cellarius promittit merum hircæ, & zythum obbâ, pincerna id fustum è cantharo, infusumque poculis, calicibus, vitris & pateris, porrigit pocillatori, hic autem convivantibus.

861. Tum sunt propinationes & circumpotationes, pro salute hujus & illius, præbibuntque sibi crateres ad ebibendum uno haustu; præsertim postquam adhiberunt.

862. Sub extremum tolluntur patinæ, cum buccellis, crustis, semesisque missis, & aliis, analæctis, apportanturque bellaria, & salgama: verum enimvero festiva colloquia, & lepide confabulationes, sunt primaria pars lautæ tractationis, letæque epulationis; quia intercedente mentione unius rei possunt multa ediffertari hilariter.

859. Those that are well bred put bits into their mouthes moderately, not sling them in; they eat with chewing, not swallow with gobbling; lest afterward they should belch, or hick-up; nor lick their lips, but wipe them with a napkin, if they be greasie.

860. In the mean while drinking-vessels are brought out of the pantry, and being washed are set upon the cup-board: and whilest the butler draweth wine in a bottle, and beer in a jug [jack,] the waiter pouring it out of the great pot, and pouring it into pots, cups, glasses and bowls, gives it to the cup-bearer, and he to the feasters.

861. Then they drink to one another, and drink round ones health, and to others health, and drink to one another bowls to drink off at one draught; especially after they have fudled a while.

862. At last the platters are taken away, with pieces, crusts, and half-eaten bits, and other scraps; and the junkets & sweet-meats are brought in: but the truth on't is, pleasant discourses and merry drolleries are the chief part of gallant entertainment, and joyfull feasting; because the mention of one thing falling in, many things may be merrily spoken off.

863. Peraſto convivali epulo, ſurgitur à menſa, gratèſque aguntur ei qui tractavit liberaliter, iturq; domum; ſi noctu, facibus prælucentibus: quanquam quidam heluones, etiam ſumpto antecœnio, & comefſari abundè, ſuperingerunt pocœnia, ut ſe contumulent citius.

863. The banquet and feaſt being ended, they riſe from table, and they thank him who treated them liberally, and they go home; if at night, with lighted torches [*links*] before them: although ſome gormandizers, having taken alſo an afternoons luncheon, & fed ſufficiently, they throw in beſides after-suppers; that they may bury themſelves the ſooner.

CAP. XC.

Sepulchrales ritus.

Funeral rites.

864. Ultimum quod mortales debent ſibi invicem, eſt deductio ex hac vita; cujus non una ratio obſervatur, hodièque.

864. The laſt thing which men owe to one another, is the carrying them out of this world; whereof ſeveral ways are obſerved, even at this day.

865. Quondam comburebant cadavera, cinerèſq; (conſperſos odoratis liquoribus) condebant propè buſta inurnis: & nè manes oberrarent, faciebant illis juſta feralibus epulis: conductæ verò præfixæ deſtebant lugubribus leſſibus & nœniis, enumerando laudes defuncti.

865. In time paſt they burned the carcaſſes, and the aſhes (ſprinkled with ſweet liquors) they laid up near the burning-places in urns: and leſt the ghoſts ſhould walk, they performed to them obſequies with funeral-feaſts: hired mourning-women lamented with mournfull ſongs and ditties, by reckoning up the praiſes of the dead.

866. Nos humamus noſtros demortuos; qui à nobis comploſati, & mox emortuali die lugubriter innuti, vel etiam à pollinctore pollincti, includuntur capulo (loculo;) adornaturque funus funeſtis ritiſus; funus nempe impoſitum

866. we bury our dead in the ground; who being lamented by us, and preſently on the day of death being laid in a ſheet, or alſo embalmed by the embalmer, are ſhut up in a coffin, and the funeral is ſet forth with funeral-rites: for the corps being put on a bier, is carried out by

ſandapila (ſcietro) effertur à ſandapilariis, ſuntq; exſequiæ funebri pompâ, cœmeterium verſus (viri incedunt pullari, ſceminæ riciniatæ;) ubi ſepelitur à *uſpillone*, qui & eſoſſa interdum oſſa reſodit, aut recondit in oſſuario.

867. Bene meritis eriguntur altiores tumuli ad ſepulchra, vel alia honoraria monumenta; *ſtatue*, *epitaphia*, &c. cantanturque *epicedia*; & recitantur ſolemniter *encomia*: ita vivi parentamus mortuis (honorifico luctu.)

the bearers, and exequies are performed with funeral pomp, towards the church-yard (the men walk in black, the women veiled:) where he is buried by the grave-maker, who ſometimes alſo burrieth again the dig'd-up bones, or putteth them in a bone-houſe [*charnel*.]

867. At the ſepulchres of thoſe who have deſerved well, are erected tombs, or other honourable monuments, ſtatues, epitaphs, &c. and dirges are ſung; and encomiums are recited ſolemnly: thus we alive celebrate the obſequies of the dead (with honourable mourning.)

C A P. X C I.

Regnum: ubi *luſtramen regionis*.

Of a kingdom; where the ſurvey of a countrey,

868. *REGNUM* dicitur conciliatio multarum civitatum, & terrarum ſub uno capite; inita, cō fine, ut unita virtus ſit fortior, ad obſiſtendum illis, quæ diſſipationem adferre poſſunt.

868. A *KINGDOM* is ſaid to be the imbodying of many cities, and lands under one head; entered to this end, that force being united may be the ſtronger, to withſtand thoſe things, which might bring a diſſolution.

869. Ibi tria ſunt neceſſaria, 1. *regio ampla*, multorum inhabitatorum capax: 2. *ſeries ſtatuum ordinata*: 3. *ſanctio legum firmata*.

869. There are three things neceſſary, 1. a large countrey, capable of many inhabitants: 2. a rank of ſtates ordained: 3. a firm eſtabliſhment of lawes.

870. Bonum eſt regionem eſſe redactam ſub unum regimen, diſcuſamque ab aliis limitibus; ſeu nativis, marium,

870. It is good that a countrey ſhould be reduced under one government, and divided from others by bounds; thoſe either natural, of paludum,

paludum, desertorū, montium vel fluminum; seu arte factis, *putà concœdibus silvarum, arcibus limitaneis, &c.* (Uni *Chinenses*, quod sciamus, discluserunt se à *Tartaria*, muro quadringentarum lacarum, &c.)

871. Intra se regnum dividitur in certos *principatus, comitatus, dynastias*: ubi si quis absolutè dominatur, est *dominium*: ubi duntaxat jurisdictionem habet, *districtus*: (ditio bello devicta, & nostro imperio adjecta, dicitur *provincia*;) qualescunque autem sunt isti tractus, circumscribuntur regionatim suis limitibus: frunturque minora *territoria* minoribus *immunitatibus*; majora majoribus.

seas, lakes, deserts, mountains or rivers; or made by art, as with felling of woods, castles on the borders, &c. (those only of China, as we know of, have separated themselves from Tartaria, with a wall of four hundred leagues length, &c.)

871. A kingdom within it self is divided into certain principalities, counties, lordships; where if any one rule absolutely, it is a dominion: where he hath only a jurisdiction, a lieutenanship; (a countrey subdued by war, and added to our empire, is call'd a province;) but of what kind soever those tracts are, they are circumscribed countrey by countrey with their bounds; and the lesser territories enjoy lesser privileges; the greater ones, greater.

C A P. XCII.

Regni administratio.

The managing of a kingdom.

872. In regno sunt *liberi status*, colligati inter se vinculo statutorum; habentes infra se populum, cui imperant; supra se autem *Regem* vel *Reginam*, cui parent.

872. In a kingdom are free states, joyued together with the bond of statutes; having under them the people whom they rule; but over them a King or Queen, whom they obey.

873. *Primarii* inter status sunt *proceres, comites, marchiones, duces, archiduces, domini* instar regulorum in suis comitatibus, marchionatibus, ducatibus; habentisque sub se

873. The chiefest amongst the states are peers, earls, marquesses, dukes, arch-dukes, ruling like petty kings in their earldomes, marquises, dukedomes; and having under them lords, barons, knights:

Q 4

dynastias,

dynastas, barones, equites: possesores scilicet dynastiarum, baronatum, prædiorumque, sive mancipi, sive ut vassallos, jure feudi.

to wit, owners of lordships, baronies, and farms, either as free-holders, or as vassals, by right of fee.

874. *Populus obedit suis superioribus per omnia, penditque census, tributa, vectigalia, quandoque & capitationem, nempe ipsorum quæstoribus, tabulariis, publicanis: sed impetrantibus libeat sic imperare, ut collubeat & subditis obedire, citra querelas & coactionem: non sunt attenuandi angariis, exhauriendique exactionibus: potius deliniendi congiariis, & aqvatis; excarnificare suos, est tyrannis.*

874. *The people observe their superiors in all things, and pay taxes, tributes, customes; and sometimes also head-money; namely, to their treasurers, receivers, farmers of customes: but let it please rulers to rule, that it may also please the subjects to obey, without complaints and force: they are not to be squeezed with purveyances, and drawn dry with exactions; rather to be won with doles, and donatives; to pill and poll his subjects is the part of a tyrant.*

875. *Rex, aut hæreditario capessit sceptrum, (ubi jus illud regii stemmatis est, ut primogenitus succedat) aut eligitur libris votis ordinum sede vacante, accipitque coronam cum homagio; posteaquam tempore interregni gubernatio administrata fuit, per interregem,*

875. *A King either enjoys his scepter by inheritance (where that is the right of the royal race, that the first-born succeeds,) or else is chosen by the free votes of the states, the place being vacant, and takes a crown with homage: after that the government of the inter-reign hath been managed by an inter-king.*

876. *Residens autem rex in sua regia (plerumque in metropoli,) delegat quaquaversam vicarios, præfectos (satrapas) fiscales, administratoresq; alios; quin & ad externos legat legatos, qui instructi*

876. *Now the king residing in his palace (most-an-end in the metropolis) sendeth forth every whither lieutenants, rulers, purveyors, and other governors: moreover also to foreign parts he sends ambassadors, who being authorized by the authentic*

authenticæ diplomate, res sibi commissas gerunt.

king's commission, manage the businesses entrusted with them.

877. Circa se domi habet consiliarios intimos; aula magistrum; mareschallum, &c. Cancellarius est cognitor causarum ad regem devolutarum, custosque sigilli, archivi, tabularumque publicarum: cui additi sunt secretarii & amanuenses: superiores ministri sunt dapifer, pocillator, thesaurarius, stabuli magister; inferiores autem, cubicularii, atrienses, celeres, stipatores & spiculatores: (sed reverà non tam satellites tutantur principem, nec tam locupletant fisci redditus, aut repositæ gazæ, quam amor provincialium.)

877. He hath about him at home privy counsellors; a comptroller; marshal, &c. a chancellor is he that taketh notice of the causes devolv'd to the king, and keeper of the seal, master of the rolls, and publick records: to whom are added secretaries and clerks: the superiour officers, are the dish-bearer, cup-bearer, treasurer, master of the horse; but the inferiour ones are the chamberlains, porters, posts[quarries], guards and halberd-men: (but indeed the life-guard do not so well defend the prince, nor the revenues of the exchequer so much enrich him, as the love of his subjects.)

878. Usus eunuchorum in gynæceis, obsolevit apud nos; utinam & morionum, gnathonium, nugigerulorum, & psychopanturum!

878. The use of eunuchs in Seraglio's is left off by us; I wish also fools, sharks, buffoons and promoters were too!

879. Cùm rex exhibet se pro Majestate sua (præsertim legatis exterorum, admittendis ad audientiam: aut dimittendis cum honorario,) sedet in eburneo solio, magnificè vestitus trabecæ & ornatus diademate, stipatusque frequentia aulicorum.

879. When the king sheweth himself in his majesty (especially to foreign embassadours, who are to be admitted to audience, or dismissed with a present) he sitteth in an ivory throne, sumptuously [gorgeously] attired in a robe of state, and adorned with a diadem [crown,] and guarded with a throng of courtiers.

880. Comitia aguntur in negotiis concernentibus re-

880. Parliaments are kept about business that concerns the whole
rum

tum regnum, ad quæ concie-
tur nobilitas, civitatûque pri-
mates: ubi alii præ aliis ha-
bent prærogativam suffragii:
nemo autem debet invitus suf-
fragari, vel refragari; five fan-
cienda est quædam nova lex,
five abroganda vetus, aut no-
vanda moneta, aut ineundum
fœdus, bellûmve decernendum.

881. Reges magni appel-
lant se monarchas, & imperato-
re, regnântque ferè soli, ab-
solutè: quanquam Romani Cæ-
sares soliti sint legere sibi col-
legas, sed nunc (in Romano-
Germanico imperio) eligitur
unus ab Electoribus, quorum
numerus, nuper est adauctus.

kingdome, to which are called [sum-
moned] the nobility, and chief men
[burgesses] of the cities; where some
above others have prerogatives of
vote: but none should be forc'd to
vote for, or against; whether a new
law is to be made [ratified,] or an
old one abrogated [abolish'd,] or
money to be new coined, or a league
to be made [enter'd,] or a war to be
resolved on.

881. Great Kings call them-
selves monarchs and emperours,
and rule alone for the most part, ab-
solutely: although the Roman Cæ-
sars [Emperours] were wont to chuse
themselves colleagues: but now (in
the Roman-German empire) they
chuse one of the Electours, whose num-
ber is now increased.

C A P. XCIII.

Turbæ regnorum, & bella.

The troubles of kingdomes,
and warres.

882. Status pacatus est opta-
rissimus, sed fit nonnunquam,
ut nequeat obtineri, nisi vi
armorum; five quòd gentes
finitimæ invadant nostra (mo-
vendo lites de confiniis;) five
quòd potentes involvant po-
pulos bellis (contendendo in-
ter se de eminentia,) five quòd
etiam domi motus suborian-
tur, non aliter compescendi,
quàm vi.

882. A peaceable state is most to
be wished for, but it falls out now and
then, that it cannot be obtained by
force of armes; either because the bor-
dering nations invade ours (by moving
quarrels concerning the bounds;) or
because great men involve the people
in war (by striving among themselves
about prebeminence) or because also
troubles arise at home, not to be ap-
pear'd by any other way then by force.

883. Puta

883. Puta quum superiores tyrannicè intentant inferioribus jugum servitutis; hi autem censent dimicandum esse sibi pro libertate, vel faciendum ad alium dominum: aut quum fastiosi quidam turbatores (propter privatas similitudines, alio tamen quopiam prætextu) disseminant clandestinas conspirationes, & moluntur concitare conjurationes, tumultus, seditiones, rebelliones, atq; sic bella intestina.

884. Ut tamen anteveniatur bellum, nihil non tentandum est, domi forisque: nempe depaciscendum cum confinibus, compactaque subinde renovanda: domestici autem continendi, sub æqualitate juris, nec permittendæ injuriæ in quenquam; apprimè observandi inquieti, proclives ad novationem rerum, & callidi causari quidvis; nè quid obtendere queant suis molitionibus.

885. Nihilominus coortâ conturbatione, solet reconciliatio requiri per internuncios; aut interpositio vicinorum, quâ tumultuosi dimoveantur à pravis consiliis; aut mittitur caduceator ad hostem ipsum, qui petat pacem, præ-

883. To wit, when the superiours tyrannically strive to put the yoke of bondage on the inferiours; but these think they must try hard for their liberty, or revolt to another master; or when some factious disturbers (for private grudges, upon this or that pretence) conspire secretly, and endeavour to make plots, tumults [hurly-burlys,] seditions [up-roars,] rebellions, and by this means civil warres.

884. Nevertheless that war may be prevented, we must try every thing, at home and abroad: namely to make peace with the borderers, and the leagues ever now and then to be renewed, but those at home to be kept under the equality of lawes, nor injuries to be permitted on any one; unquiet spirits are chiefly to be observed [lookt after,] that are prone to innovation, and subtle to quarrel any thing, that they may have nothing to pretend for their plottings.

885. Notwithstanding a disturbance being risen, a reconciliation is wont to be sought by agents; or an interposition of neighbours, whereby the tumultuous persons may be removed from their evil counsels; or a herald is sent to the enemy himself, who may sue for peace: especially if
ferrim

fertim si quis arbitretur se imparatum, aut imparem hosti: quandoquidem temerarium foret, objicere se imbellem bellicoso, inexercitatumque exercitato.

886. Sit amen minax hostis renuit pacificationem, missoque feciali clarigat (hoc est, denunciat hostilitatem) cogitatur quam primum de intercludendo illi aditu, & de bellico apparatu, qui multa apposcit: ut *militem*, (tùm indigenam, tüm extraneum sicunde haberi potest,) auxiliâque foederatorum, & commeatum, & dapniles sumptus.

887. Itaque *ships* cogitur, emittunturque oppidatim *inquisitores*, qui colligant militaturos, conducantque dato auctoramento: quos jam conscriptos, & deductos in diribitorium ad armilustrium, diribitor lustrat viritum, habitoque delectu obstringit sacramento, & sic autorat.

888. Tum instruit armatura alios levi, alios gravi: ut valeant & defendere sese, & impetere hostem animosè: capiti offert *galeam* (subductam cudore,) pectori adoperiendo *ferreum thoracem* (catahrafti tamen circumquaque loricantur;)

one deems himself unprovided for, or not able to match the enemy: seeing it will be a rash matter for an unwarlike person to undertake one that is a warrior, and one that had had no practice, him that has.

886. Yet nevertheless if the swaggering enemy refuseth peace, and sendeth a herald-at-arms, proclaimeth, (that is, denounceth war) first of all they think of the stopping of his passage, and of warlike provision, which requireth many things: as souldiers (as well home-bred, as forein, from whencesoever they may be had) and auxiliaries of allies, and victuals & good pay [great charges.]

887. Therefore pay is raised, and commissioners of array, are sent out countrey by countrey who may raise souldiers, & hire them by giving them press-money: which being now listed and brought into the artillery-ground to the muster, the muster-master views them man by man, and having picked out some he swears them, and so engageth them.

888. Then he furnisheth some with light armour, others with heavy: that they may be able to defend themselves, and courageously fall upon the enemy: for the defence of the head he giveth a helmet, (drawn down with a murrion) for the covering of the breast an iron breast-plate (but

tur;) sinistro brachio *clypeum* vel *scutum*, dextræ verò *hastam*; lateri accingit *gladium*, vel appendit *baltheo*, ut promptius stringatur è vagina, evaginatusque recondatur facilius capulotenus.

those that are arm'd cap-à-pe, are on every side done with brigandines) for the left arm a target: but for the right a spear; to the side he girts a sword, or hangs it in a belt; that it may the more readily be drawn out of the scabbard; and being drawn out it may the more easily be put up to the hilt.

889. Dehinc concenturiat exercitum, per legiones & vexillationes: dum redigit equitatum in *turmas* chlamydatas, peditatum in *cohortes* sagatas, utrosque autem in *contubernia* (seu *decurias*) præficitque *decuriis* *decuriones*, *centuriis* *centuriones* (nemp. equestribus *magistros equitum*, pedestribus *magistros peditum*) millenis *chiliarchas* (five *tribunos*;) tandem omnibus paludatum imperatorem.

889. Then he marshals the army, into regiments and bands: whilst he bringeth the horse into troops with cloaks, the foot into companies with coats, and both into squadrons or tens; and sets over the squadrons serjeants and corporals, over the hundreds captains, (to wit, in horse-companies, masters of horse, in the foot, masters of foot) over thousands colonels; and at last over all the general in his coat of armour.

890. Adjuncti horum sunt, locumtenentes, *vexilliferi*, & *campiductor*, quorum quisque si vult, asciscit sibi optionem, ad curandum res suas privatas.

890. The assistants of these are lieutenants, ensigns [*cornets*,] and the camp-master, every one of which, if they please, get them a deputy [*proxy*] to look to their private affairs.

891. *Dimachæ* & *volones* aggregantur tam equitatu quam peditatu, *tyrones* intermiscuntur *veteranis* (postquam præexercitati fuerint prælusionibus;) *lixæ* & *calones* (*caculæ*) addicuntur servitiis.

891. Dragoons and volunteers are rank'd both with horse and foot, fresh-water-souldiers are mingled amongst the old-beaten-souldiers (after they have been exercised afore-hand with trainings;) sutlers and lانسprisdones are appointed for drudgeries.

892. Rebus

892. Rebus sic dispositis, suscipitur quantocyus *expeditio*: metaturque metatur castrali loco, qui commodus sit frumentationi, & pabulationi, aquationi item & lignationi: hic ponuntur *tentoria*, figunturque *paxillis*, utque *stativa* sint ab incursionibus tuta, circumvallantur aggeribus.

893. Instituuntur tamen excubiæ per certas stationes: nec unde superveniens inopinato hostile agmen perfundet incautos: daturque *tessera* à *præfecto vigilum* (tesserario,) quâ sui se recognoscant.

894. Interea emittuntur *speculatores* & *exploratores*, qui observent hosticas machinationes, reducésque referant *visa* & *audita*: insimulque fiunt catervatim excursions, obviaturæ depopulantibus, ubicunque occurrentibus.

895. Quum tandem copiae deducuntur ad *prælium*, ordinantur in *aciem* (cuneatam vel quadratam) sic, ut *pedites* occupent medium, *equites* sint *alarii*: *signiferi* autem ferunt signa inter medias catervas, quos præcedunt *antesignani* cum *romphæis*; *tympanistæ*que strepitu *tympanorum*, & *æneatores*

892. Things being thus order'd, with all haste the expedition is undertaken; and the quarter-master designs the camp in such a place, as may be convenient for provision and forrage, for water too and fuel; here the tents are pitch'd, and fastened with stakes [pegs,] and that the quarters may be safe from onsets [inroads,] they are intrencht with works.

893. However there are centinels set at certain stations, for fear the enemy coming upon them unaware should beat up their quarters: and there is given a watch-word by the captain of the guard, whereby they may know those of their own party.

894. In the mean while there are sent out spies and scouts that may observe the enemies designs, and at their return report what they have seen and heard; and withall there are made sallies by parties, to meet with [snatch] plunderers, wherever they catch them.

895. When at length the forces are drawn out to fight, they are order'd in battalia (wedg'd or square) so, that the foot have the van, the horse the wings; but the standard-bearers carry the standards in the midst of the troops, whom the adjutants march before with banners; and the drummers with beating of drums, and the trumpeters and

tores clangore tubarum & li-
tuorum canunt classicum: du-
ces autem circumaquitantes
inflammant ad strenuitatem,
hortatibus & obsecrationibus.

896. Velites usitatè incef-
sunt hostem, & velitando fa-
ciunt initium pugnæ: mox
concurrunt legiones primipi-
lorum, pugnântque truculen-
ter cominus & eminus, five
pugna sit stataria, five grada-
ria.

897. Olim ejaculabantur
lapides in longius diffitos:
funditores é fundis, balistarii é
catapultis; postea sagittarii
promentes sagittas é pharetris,
imponabant arcubus, hósque
nervo, tendentes & dimittentes
arcebant eminus ingruenté
hostem, ac protelabant: hodie
sclopetarii onerant sclopetis
nitrato pulvere, plumbeisque
globis, post displodunt &
transverberant obvios.

898. Propius distantes ir-
ruere prohibentur pilis & sa-
rissis; irruentes nihilominus
trajiciuntur lanceis, & bipen-
nibus, magno nisu vibratis.

899. Proximi proturban-
tur calis & clavis; vel cædun-
tur ensibus & semispathis, vel
obtruncantur acinacibus;

fifers with the sound of trumpets and
fifes, play an alarm; and the cap-
tains riding up and down with en-
couragements and entreaties set the
souldiers on fire to play the men.

896. The light horse-men usu-
ally set upon the enemy, and with
skirmishing begin the fight; anon after
companies of the first ranks meet,
and fight desperately hand to hand
and at a distance, whether it be a
pitcht or a running battel.

897. Heretofore upon those that
were at great distance they darted
stones; slingers out of slings, cross-
bow-men out of cross-bowes; after-
wards archers taking arrows out of
quivers, set them on bowes, and draw-
ing them by the string, and letting
them loose again, kept off at distance
the enemy making onward; and made
them stand off: now-a-dayes mus-
keteers load muskets with gunpow-
der and leaden bullets, and then dis-
charge them and shoot those that come
i'th' way.

898. Those that are nearer at
hand are kept off with darts and ja-
velins; and if they come on not-
withstanding, are thrust through with
lances and halberds, being brand-
ished with great earnestness.

899. Those next at hand are
knock'd down with battoons and
clubs: or are slash'd with swords
and hangers, or quartered with cy-
quin

quin & punguntur *frameis* & *pugionibus*, sitque miserranda strages, dum hinc vel illinc promiscuè cadunt, & conculantur atque proteruntur, cum horrendo ejulatu.

900. Novissimè producuntur *triarii* & *prætoriani*, conflictusque redintegratur, dumque *succenturiati* invadunt hostem ex insidiis, disturbant ipsius aciem fugant, insectantur, contrucidant.

901. Qui terrore perculsi, quærunt evadere, elabi, diffugere; si diffugii spes non est, dedunt se, ut capiantur; sed qui cædem & captivitatem evaserunt, palantur dispersim, donec aggregentur à suis, aut inveniant confugium.

902. Quando nox dirimit pugnam, canitur receptui, viatorque miles diribit prædam, & manubias devictorum; nî hostis dimicationem radauspiceretur, relictis suis dissipatis.

903. Rebellis urbs, vel arx, (in quam prostrigati sese receperunt) cingitur copiis, obsidetur, obvallatur, oppugnatur, donec expugnetur; hoc est, occupetur, aut recuperetur.

904. Hic adhibentur mul-

ters: and besides run through with tucks and stilletoes, and there's made a pittifull havock, whilest they fall on one side and v^t other promiscuously, and are trampled under foot, and trod to dirt, with a dreadful shrieking [yelling.]

900. Last of all are brought forth the reserve and the life-guard, and the fight is begun a-fresh, and whilest the recruits set upon the enemy out of an ambush, they rout their army, put them to flight, and do execution upon them.

901. They who are appall'd with fear, seek to escape, slip away, and be gone; if there be no hope of escape, deliver up themselves to be taken prisoners, but they who have escaped killing and being taken prisoners, straggle up and down in parcels, 'till they are rallied by their own men, or meet with shelter [a hiding place.]

902. When night puts an end to the battel, they sound a retreat, and the conquerour shares the booty and spoils of the conquered: unless the enemy begin to fight again, having rallied his scattered men.

903. A city or castle that stands out, (whereunto the routed enemy hath betaken himself) is surrounded with forces, beleaguerr'd, block'd up, storm'd, 'till it be won; that is, till it be taken [seiz'd] or regain'd.

904. Here many kinds of devices
tisarii

multifarii machinatus : aliquando scanduntur muri furiali impetu, admotis scalis, vel advolutis ambulatilibus turribus, è quibus demissâ exostrâ (arrestario ponte) oppugnatores insiliunt muros.

905. Alias diruuntur adactis arietibus, vel libratis saxis è ballista : hodie demoliuntur firmamenta quæcunque è fulmineis tormentis, locatis post cratitias gerras (terrâ oppletas.)

906. Est quoque inventum instrumentum dirumpendi violenter portas, piloclastrum (impetarda,) excogitanturque in dies alia vaframenta (stratagemata:) imprimis suffossiones, sive occultæ, per subterraneos cuniculos, sive apertæ, sub pluteis.

907. At obfessi relinquunt nihil intentatum, ut se defendant : extruunt antemuralia propugnacula; & hæc præsepiunt sudibus (ad hostem accessu excludendum) aut spargunt per submœniana ferreos murices : & superfundunt irumpentibus ardentem picem: intus item opponunt diruptioni mutorum abscissiones per novas fossas, ut introrumpentes reperiant præcipitia nova.

are made use of; sometimes the walls are scaled with furious force, by clapping scaling-ladders to them, or by making approaches with galleries, from which the assailants letting down a draw-bridge, [a cross-bridge,] leap upon the walls.

905. Otherwise the walls are beaten down with battering rams driven to them, or great stones hurld out of a sling : now-a-dayes they demolish any fortifications whatsoever with great ordonnance placed behind gabions (filled with earth.)

906. There is also found out an engine to force open gates, a petard, and there are daily devised other tricks (stratagems:) especially mines, whether hidden, thorow under-ground passages; or open, under galleries.

907. But the besieged leave nothing unattempted, to defend themselves: they raise sconces and out-works; and fence them with palisadoes, (to keep the enemy from approaching) or scatter under the walls iron caltrops: and pour scalding pitch upon them as they break in; and on the inside hinder their breaking through the walls with cutting new ditches, that as they break in they may meet with new down-falls.

908. Solent etiam præfidarii, propugnantes castrum, facere eruptionem, & tentare an queant abarcere suos obsesores: sed repelluntur, & debellantur majore vi, donec angustati, aut deficiente com meatu, & quando nulla spes est suppetiarum, deditionem tractare incipiant, petentes *inducias*: quæ panguntur ad aliquot horas, aut etiam prorogantur, datis utrinque *obsidibus*.

909. Qui se submitunt patriâ deditione, nanciscuntur conditiones honestas: sed vi expugnata civitas diripitur, aliquando deletur ad interuersionem, & sic desolatur funditus.

910. Obtentâ victoriâ; victores reveniunt à militia onusti spoliis, erectisque trophæis, & jubilantes ac ovantes, aut etiam triumphantes: *triumphus* enim agitur sollemnissimâ pompâ.

911. Ubi *strenui* (quorum virtus principaliter enituit) nobilitantur, condecorati insignibus ob heroica facinora; *saucii* sanantur, *captivi* redimuntur aut liberantur permutatione, atq; ita redeunt postliminiò ad sua: contrâ *antho-*

908. *Those of the garrison, that maintain a castle [fort,] are wont also to make a sally forth, and try whether they can drive away their besiegers: but are beaten back and overpowered with greater force, till being streightned, or provision growing scarce, and when there is no hope of relief, they begin to treat of surrendering, desiring a truce; which is agreed on for some houres, or kept on foot longer, hostages being given on both sides.*

909. *They who yield upon articles, get handsome [honourable] terms: but a city that is taken by force, is plundered, sometimes all put to the sword, and by this means utterly laid waste.*

910. *The conquerours having got the victory return from souldiery laden with spoils, and trophees set up, and shouting and singing, or also triumphing: for the triumph is perform'd with solemn pomp [state.]*

911. *Where the valiant (whose courage did principally shew it self) are ennobled, being graced with marks of honour for their heroick atchievements; the wounded are cured, the prisoners ransom'd or set at liberty by exchange, and so return afterward to their own homes: on the other side,*

res tunc

res thurbarum (cum perfidis defectoribus, proditoribus, perduellibusque) plectuntur, desertoresque commilitonum, & transfugæ puniuntur.

912. Ultimò miles distribuitur in hiberna: aut exsolutis stipendiis, (quantum quisque promeruit) exarmatur & exauctoratur; emeritisque rude donantur: qui autem pro patria occubuerunt, afficiuntur panegyricis & adoreâ.

913. Navale prælium est terribilius; cum infestæ classes tormentis sese quassant, classariique ipsas militares naves perforant, incendunt, profundo absorbent; aut captivant injectis harpagonibus, & uncis, &c.

914. Nunc prætoria navis dicitur, qua vehitur archithalassus; præsiaria quæ excubat; speculatoria, quæ excurrit ad explorandum; frumentaria, quæ advehat comæmentum, &c.

915. Minam autem obsolescant hæc opprobria nostri generis, mundi que disperditio, bella! nihil enim uspiam est tam sacrum & inviolabile, tamque celsum, munitum, impensum, aut immensum, invictum aut inexpugnabile, quod vis belli non violet, infirmet,

the mutineers with perfidious turncoats, traitors and rebels, are executed, and those that run away from their colours, and Jack-on-both sides are punished.

912. Lastly the souldier is bestowed into winter-quarters: or having his debentures paid, (as much as every one deserv'd) is disarm'd and disbanded; and the old souldiers are priviledged from war: but such as dyed in the field for their country, are rewarded with harangues and renown.

913. A sea-fight is more dreadful: when the enemy fleets rattle one another with their great guns, and the souldiers on ship-board, do bore, fire, sink the men of war or take them prisoners by clapping grapples and iron hooks on them, &c.

914. Here that is called the admiral ship, where the admiral is on board; a catch, which lies out at guard; a scout-ship, which runs forth to scout; a corn-ship, which brings provision, &c.

915. But I would to God these reproaches of mankind and destruction of the world, wars, I mean, might grow out of use! for there is nothing any where so sacred and inviolable, and so lofty, secure, costly or vast, strong or impregnable, which the force of war doth not violate, weaken, break, overturn, dash in

infringat, subruat, atterat, vastet, excindat, aboleat: ut documento sunt tot urbes & regna, regnatorésque ipsi; cum suis innumeris exercitibus, modernaque vastitudo & probrosæ in Europa ruinæ.

pieces, lay waste, cut up, and abolish; as so many cities and kingdoms, and Kings themselves; with their numberless armies, and the modern desolation, and reproachfull ruines in Europe serve for instance.

C A P. XCIV.

R E L I G I O.

R E L I G I O N.

916. Quandoquidem spectator fuisti hucusque quomodo homines tractent res & se ipsos; restabit videre actiones eorundem reflexas in DEO M.

916. Seeing thou hast bin hitherto a looker on, how men order things and themselves; it will remain to see their actions as they are referr'd to GOD.

917. *Animus* namque hominis præsentiscit, quemadmodum ipse regit suum corpus ita esse quandam æternam mentem, quæ moderatur hoc UNIVERSUM: cui ut placeamus, esse de illa cogitandum sanctè, & facienda illi grata, & sic expectandam ab illa retributionem.

917. For the mind of man doth well perceive, that after what manner it self rules it's body, so that there is an everlasting spirit, which governs this UNIVERSE; whom that we may please, we must think reverently of him, and do those things which are acceptable to him, and so expect a reward from him.

918. Omnis igitur religio resolvit se occultè in tria; fidem in Deum, reverentiam in eum, & spem misericordiæ: quæ quisquis curat, habetur religiosus; qui non curat, irreligiosus; qui præposterè curat, superstitiosus.

918. Wherefore all religion resolves it self secretly into these three things, faith in God, reverence towards him, and hope of mercy; which things whosoever takes care of is accounted religious; who doth not look after, is irreligious; who doth preposterously, is superstitious.

919. *Atheismus* est, non credere numen; *Epicureismus*, colere ventrem pro numine;

919. It is atheism, not to believe a Deity; Epicurism, to make his belly his god; Sadducism, not to look
Saddu-

Sadducismus, non expectare *for immortality from the immortal.*
immortalitatē ab immortalī.

920. Ast quia sciri de Deo nequit, nisi quod ipsemet de se revelaverit, hinc est, quod omnes gloriantur de revelatione aliqua; sive comprehensā libris, sive acceptā a majoribus per traditionem: rursumque omnes congruunt in eo tacite, quod optima religio sit, credere quæ Deus revelavit, & facere quæ mandavit, & sperare quæ promisit.

921. Tandem, tametsi Deus colendus sit spiritu, assentiuntur tamen omnes, necessarios esse externos quosdam ritus, quibus excitemur ad internum fervorem, eoque observant quosdam ritus omnes.

922. Diversitas religionum nihilominus est magna: quæ venit partim ab ignorantia revelationum, partim à discrepante interpretatione earundem, partim à confusione quarundam, & sic admittis commentis, ac imposturis.

923. Principales sunt quatuor: sed harum quælibet dissecta in minores sectas: Gentilis, Judaica, Christiana, Mahomedana; habens quæque suum authorem, suos revelationum li-

920. But because nothing can be known of God, but what himself hath revealed concerning himself; hence it is that all boast of some revelation; whether comprised in books, or received from our ancestors by tradition; and again all agree tacitly in this, that the best religion is to believe the things which God hath revealed, and to do the things which he hath commanded, and to hope for the things which he hath promised.

921. And then, although God is to be worshipped in spirit, yet all agree that some outward rites and ceremonies are necessary, to stir up to an inward devotion, and thereupon all observe some.

922. Nevertheless great is the diversity of religions; which comes partly from an ignorance of divine revelations, partly from a different interpretation of the same, partly from a counterfeiting of some, and by that means devices of men and cheats mingled with them.

923. The principal are four: but of these each subdivided into lesser sects: Heathen, Jewish, Christian, Mahometan; every one having it's author, it's books of revelations,

pros, subseq; *times*; cujus scopu-
losi quadrvii historiam nar-
rationem en. accipe.

and it's rites: of which rocky
[craggy] four-fold way see here,
take an historical map [survey.]

C A P. XCV.

GENTILISMUS.

924. Qui nos condidit, re-
velavit se primum primis pa-
rentibus, dato illis mandato,
cum interminatione, de absti-
nenda quadam arbore (ut me-
minissent se debere obsequium
suo conditori;) sed invidio-
sus spiritus insurrexit eis, si
vellent esse tanquam Dii, ut
rescerentur de fructu veti-
ro; quod illi, eheu, fecerunt,
affectantes parilitatem divini-
tatis.

925. Sed lapsi, agnovere
reparum, erubescere nuditatem,
condemnatique ad poenas, &
ex Paradiso ejecti, acceperunt
permissionem adversus despe-
rationem, de venturo semine
mulieris, ad conferendum ca-
put deceptoris; quamquam &
ipsum esset atterendum ad re-
dimendam culpam.

926. Cujus promissum ut pos-
sent commeminisse, (quomo-
do mors morte defendenda foret)
mox agni mactabantur, ad con-
ficiendum indumenta conte-
ge de nuditari; quæ fuit pri-
ma origo sacrificiorum, & scopus.

HEATHENISM.

924. He who created us, revealed
himself first to our first parents, giving
them a command, with a threat, of
abstaining from such a tree (that they
might remember that they ought obe-
dience to their creator;) but the en-
vious spirit whispered into them, that
if they would be as Gods, they should
eat of the forbidden fruit: which they
alas, did, affecting equality of
divinity.

925. But being fallen, they con-
fessed their fault, they were ashamed
of their nakedness, and being con-
demned to punishments, and cast out
of paradise, they received a promise
against despair, concerning the seed
of the woman to come, to break the
head of the deceiver; although it
self was to be bruised also, for the
acquitting of sin.

926. Which promise that they
might remember, (how death was to
be done away by death) lambs
were presently slain, to make clothes
to cover their nakedness: which was
the first original and design of sa-
crifices.

927. At inconsiderantia hominum retinuit ritum sine significatione, offerendo hostias sine fide in redemptorem, & quærendo placare Deum opere operato, ut in Caino paruit: quæ hic fuit prima exitiabilis erratio.

928. Subiit alia: quod attemptarunt præsentiam invisibilis numinis repræsentare visibilibus signis: sive animatis, ut *Ægyptiis* (qui quod animal primum conspicati fuerant manè prodeuntes, illud habuerunt venerabile eâ die, loco Dei,) sive inanimis, ut qui se incurvabant soli, lune, stellis, arboribus, &c. sive deniq; idolis à se effictis.

929. Unde demùm stupiditas invasit animos, commentandi pluritatem deorum quorum tot confixerunt, ut singulæ gentes haberent peculiaria numina: *Babylonii Baal*: *Sidonii Astaroth*, *Ammonitæ Chamos*, *Philistæi Dagon*, *Accaronenses Beelzebub*, alii alia.

930. *Græci* commenti sunt innumerabiles deos (cum deabus,) superos, inferos, & medioximos: non tantùm partiti inter illos munia gubernandi mundi: sed & imaginati jugales thalamos, carnalemq;

927. But the rashness of men kept up the rite without it's signification, by offering sacrifices without faith in the Redeemer, and by seeking to appease God with the work done, as appeared in Cain: which here was the first accursed error.

928. Next came in another; that they endeavoured to represent the presence of the invisible deity with visible signs: either animate, as the Egyptians (who worshipped that living creature which they first saw as they went forth in the morning, all that day, for their God;) or inanimate, as those who bowed themselves to the sun, moon, stars, trees, &c. or finally, to idols, made by themselves.

929. From whence at length that stupidity entered their minds, of feigning a plurality of gods: of whom they devised so many, that every nation had their peculiar deities: the Babylonians Baal, the Sidonians Astaroth, the Ammonites Chamos, the Philistines Dagon, those of Ekron Beelzebub, others other gods.

930. The Grecians have feigned innumerable gods (with goddesses) higher, lower, and middle: not only dividing among them the offices of ruling the world; but also imagining marriages and carnal generation, any

genituram, imò & bella, non minus impie quam infulse. and wars too, no less impiously than sottishly.

931. *Romani*, rati colendos sibi esse quoscunque usquam gentium coli audierant, extruxerunt templum Pantheon dictum: diviseruntque in deos majorum gentium, (Jovem, Apollinem, Mercurium, Neptunum, Vulcanum, Martem; deasq; Junonem, Minervam, Dianam, Vestam, Cererem;) & deos minorum gentium, (Plutonem, Castorem, Pollucem, &c.) 931. *The Romans*, thinking they ought to worship whatsoever gods they heard of worshipped in any nation, raised [set up] a temple called Pantheon [of all gods,] and divided them into the gods of the greater nations, (Jupiter, Apollo, Mercury, Neptune, Vulcan, Mars; and the goddesses, Juno, Minerva, Venus, Diana, Vesta, Ceres;) and the gods of the lesser nations, (Pluto, Castor, Pollux, &c.)

932. Demortuos heroas & heroinas accensebant quoque divi, quasi erectus in cælum suis meritis, quos vocabant indigites & semideos; ut Herculem domitorem monstorum: Liberum (Bacchum) vini inventorem; Æsculapium, medicinæ repertorem; Musas, arrium liberaliū inventrices, &c. 932. They also reckoned noble men and women among the gods, as carried up into heaven by their own deserts, whom they called canoniz'd saints and demi-gods: as Hercules the tamer of monsters; Bacchus the inventor of wine; Æsculapius the finder out of physick; the Muses the inventresses of liberal arts, &c.

933. Sensatiores excusabant hanc multitudinem deorum: distitantes unum esse deorum Deum, Jovem, reliquos ejus progeniem: alii censuerunt sic variè appellitari divinas virtutes. 933. The more sober and discreet excused this multitude of gods: saying that there was one God of gods, Jupiter, the others his off-spring: others thought that the divine virtues were thus variously termed.

934. Habebant & sua oracula, edita ab illusore spiritu Vejoye, (emittentes voces ex idolis;) alii fingeabant colloquiū cum aliquo deo vel dea, ut concilia-

conciliarent auctoritatem su-
is statutis ; (sicut Numa Pom-
pilius :) tandem jactitabant
quosdam libros Sibyllinos, con-
tinentes vaticinationes varias.

935. Ad sacrificandum suis
deastris, congregabant se in
lucis, excelsisque locis, ubi ex-
truebant aras & delubra : sa-
crificuli eorum, Romanis di-
cti fuerunt *flamines*, illorumq;
summus *præsul pontifex* ; cum
consecrabant fana, dicebantur
inaugurare ; cum redigerent ad
profanos usus, exaugurare.

936. Ut expiarent piacula,
aspergebant se lustrali aquâ ;
& flagellabant flagellis, quin
& incidebant lanceolis, ad
sanguinem usque : crudelissi-
mus Satan, *Moloch*, poscebat si-
bi concremari vivos infantes.

937. Festos dies agebant
dissolutissime : præsertim Bac-
chanalia, indulgendo genio : &
lupercalia, discurrendo nudè ;
& compitalia, circa viarum
compita tripudiando, &c.

938. Superfunt etiamnum
vecordes idololatæ, qui pro vi-
vo DEO colunt quidvis com-
mentitium ; Indi quidã cacæx-
monem ipsum, studio placandi

might gain authority to their decrees ;
(as Numa Pompilius :) at length
they boasted of some books of the
Sibyls, containing divers prophecies.

935. To sacrifice to their petty-
gods, they gathered themselves to-
gether in groves, and high places,
where they raised altars and shrines ;
their priests, were called with the
Roman *flamines*, and their chief pre-
sident the high-priest ; when they
consecrated temples, they were said
to inaugurate ; when they returned
them to prophane uses, to exaugurate
[unballow.]

936. That they might expiate their
offences, they sprinkled themselves
with holy water, and scourged them-
selves with scourges, and moreover
slight themselves with lances, even to
blood : the most cruel satan, Mo-
loch, required that living infants
should be burnt to him in sacrifice
alive.

937. They spent festival dayes
most dissolutely : especially the feast
of Bacchus, in eating and drinking ;
the Lupercals, in running up and
down naked ; and the Compitals
[wakes] in dancing about the turn-
ings of the wayes, &c.

938. There are yet remaining so-
tish heathens, who instead of the
living GOD worship any fancy :
some of the Indians the very devil
himself out of design to appease his
furorem

furorem ejus : (litamus ei, in-
quiunt, non ut profit, sed ut
ne noceat : hem dementiam!)

*fury : (we sacrifice to him, say
they, not that he may help us, but
that he may not hurt us: oh madness!)*

C A P. XCVI.

JUDAISMVS.

939. Invalescente idoloma-
nia, evocavit Deus. Abraham
è medio idololatrarum, inti-
mavitq; ei, se solum esse Deum
Schaddai (*omnisufficientem*) ut
sibi serviat cum sua posteritate, è
qua proditurus esset Messias in
quo benedicerentur omnes gentes
terra : à quibus eum tantisper
discrevit signo circumcisionis
præputii.

940. Postea dedit illis (per
manum Moysi) tripartitam le-
gem, moralem, ceremonialem,
forensam.

941. *Moralis*, est immu-
tabilis norma interni cul-
tûs : cujus summarium est de-
calogus, quem Deus ipse cœ-
litus detonuerat, edicendo sic:
*Non esse colendum aliud numen
præter se ; non effigiandum se
simulacris ; nomen suum sacro-
sanctè venerandum ; sabbatum
religiosè feriandum, progenitores
ac nutricios honorandos ; non
temerandam esse ullius hominis
vitam, aut pudicitiam, aut fa-*

J U D A I S M.

939. *When the madness of idol-
worship prevail'd, God called Abra-
ham out from the midst of the ido-
laters, and intimated unto him, that
he was the only all-sufficient God,
that he might serve him with his
posterity, out of which the Messias
was to come, in whom all the na-
tions of the earth should be bles-
sed ; from whom he separated him
for a while by the sign of the cir-
cumcision of the fore-skin.*

940. *Afterwards (by the hand
of Moses) he gave them a threefold
law, moral, ceremonial, judicial.*

941. *The moral law is the un-
changeable rule of inward worship :
the summary of which is the deca-
logue [ten commandments,] which
God himself thundered down from
heaven, saying thus : that no other
deity besides himself is to be wor-
shipped ; that he is not to be re-
sembled by images ; that his name
is with holiness to be revered ;
that the sabbath is to be religi-
ously hallowed ; that our fathers
& guardians are to be honoured ;
that the life of no man is to be
violated, or his chastity, goods,
cultates*

gultates, aut famam, aut quidem concupiscendo quidquam illicite.

942. *Ceremonialis fuit quâ præscribatur ratio externi cultûs, per varias ceremonias, præumbrantes futuram veritatem:*

1. ut, quod voluit esse unicum sanctuarium; 2. & in illo unicum altare; 3. cum unico jugiter continuato igne; 4. unicoque summo sacerdote; 5. item unicâ arcâ fœderis, &c. 6. omnia hæc ad præcidendam occasionem polytheiæ; 7. adumbrationemque unici sacrificij pro peccatis mundi, &c.

943. Voluit & frequentari congregationem populi generalem, ter annò, festo; 1. paschatis, 2. pentecostes, & 3. scenopæias; in memoriam 1. paschalis agni (cujus sanguine liberati fuerunt à percussore angelo;) & 2. datæ legis; & 3. quadragenariæ conservationis in eremo: & ut insuicerent agnoscere Deum, ut suum 1. conservatorem, 2. redemptorem, 3. sanctificatorem: fuitq; additus sabbatismus annorum, & annus jubileus, typus futuræ universalis restitutionis.

944. *Sacrificia jussit offerri vel* 1. *eucharistica (ad testi-*

or reputation, not so much as by coveting any thing unlawfully.

942. *The ceremonial law was that in which the way of outward worship was set down, by sundry ceremonies, shadowing out the truth to come; as 1. that he would have but one sanctuary; 2. and in that but one altar; 3. with one fire alwayes continued; 4. and with one onely high priest; 5. as also one ark of the covenant, &c. 6. all this to cut off the occasion of plurality of gods; 7. and to shadow forth one onely sacrifice for the sinnes of the world, &c.*

943. *Moreover he would have a general congregation of the people meet together thrice in a year, 1. at the feast of the passeeover, 2. of pentecost, and 3. of the tabernacles; 1. in the memory of the paschal lamb (by whose blood they were delivered from the destroying angel;) and 2. of the law given; and 3. of the forty years preservation in the wilderness: and that they might use themselves to acknowledge God, 1. as their preserver, 2. as their redeemer, 3. as their sanctifier: and there was added the sabbatical year, and the year of jubilee, a type of the universal restitution that shall be.*

944. *He commanded sacrifices to be offered, 1. either of thanks-*
ficandam

ficandam pro beneficiis gratitudinem) quæ constabant ultioneis oblationibus, five esculentorum & potulentorum, dicebaturque *libatio*; five animalium mactandorum, *pacifica hostia*: vel 2. expiatoria, pro expiandis peccatis; quorum quod offerebatur pro omnibus peccatis generatim, combustione totius victimæ, dictum fuit *holocaustum*; pro delicto admissio ignoranter *piaculum*; pro reatu commisso scienter, licet ex infirmitate, *supplicamentum*: sed & 3. voluit adoleri *thura*.

945. Jussit insuper deferre *primitias*; & *decimas* proveniunt sacris personis (*sacerdotibus*, eorumque cooperatoribus *Levitis*,) in eorum sustentationem; abstinere ab immundis cibis, omni que sanguine, relicto ad expiandum animas, (*Levit XVII. 11. 12.*) &c.

946. *Forensis lex* spectabat coercitionem refractarii populi: hinc constituta capitalis poena apostatis, blasphemis & pseudoprophetis, rursumque asyla illis, qui nolentes admiserant eadem:

947. Quoties deviabant, submittebat vates, afflatos sua inspiratione, per quos com-

giving (to testify thankfulness for blessings received) which consisted of free-will oblations, either of meats or drinks, and was called a meat-[drink-] offering; or of beasts to be slain, a peace-offering: or 2. of expiation, for atonement of sins; of which that which was offered for all the sinnes in general, with the burning of the whole offering, was called a burnt-offering, for a sin committed ignorantly a sin-offering; for a trespass done knowingly, although out of weakness, a trespass-offering: but also 3. he would have frankincense offered.

945. He gave order moreover to pay the first-fruits and tenths of the increase to consecrated persons (the priests and their fellow-labourers the Levites) for their maintenance; to abstain from unclean meats, and all blood, which was left to expiate souls, (*Lev. 17. 11, 12.*) &c.

946. The judicial law lookt at the keeping under of a refractory people; hereupon capital punishment was set upon apostates, blasphemers and false prophets; and again, sanctuaries for such as against their wills had committed man-slaughter.

947. As oft as they went astray, he sent forth prophets whom he had inspired, by whom he put them in mind

monica-

monēfaciebat poenitentia, ob-
stinatos autem castigabat va-
riè: donec & (secundum com-
minationes) abjecit & disje-
cit, ut jam destituantur tem-
plo & sacerdotio; retinent ta-
men umbram avitæ religionis
(jam pridem depravatæ per
Samaritanos, Phariseos, Saddu-
ceos, & Essæos) peraguntque
sua sacra in synagogis.

948. Nunc sunt divisi in
duas sectas: nostrates hic vo-
cantur *Judæi*, quia ex tribu
Juda (post ultimam vastationem
Hierosolymæ à Romanis
abducti in captivitatem, & di-
persi per Europam;) Asiani
sunt reliquæ decem tribuum
Israeliticarum, longè ante trans-
portarum in Assyriam: inter
quos & hos nostros implaca-
bile odium est.

949. Nam nostri sunt pro-
pago *Phariseorum*, sequunturque
traditiones majorum, com-
prehensas libro Talmud, con-
scripto à Rabbis: illi alteri
tenent sola scripta prophetarum,
ideoque dicti *Caræi*, hoc
est, scripturarii: utrique ex-
pectant adhuc Messiam, (licet
signa adventus ejus pridem
præterlapso sint,) utque i-
diutiùs emanat, agunt sæpe
jejunia cum planctu sese hu-

of repentance, and variously chastised
them when they stood out; till (ac-
cording to his threats) he both cast
them away and scattered them, that
now they are destitute of temple and
priesthood; yet they retain a shadow
of their ancient religion (long since
corrupted by means of the Samari-
tans, Pharisees, Sadduces and Es-
sæns) and perform their offices in
their synagogues.

948. Now they are divided into
two sects: those of our countrey here
are called Jews; because of the tribe
of Juda (after the last laying waste of
Jerusalem by the Romans, led away
into captivity, and dispers'd over
Europe;) those of Asia are the re-
liques of the ten tribes of Israel,
which were long before carried away
into Assyria, betwixt whom and those
of ours there is a deadly feud.

949. For ours are the off-spring
of the Pharisees, and follow the tra-
ditions of the elders, contained in the
Talmud, a book written by the Rab-
bins: those others hold only the writ-
tings of the prophets, and are there-
fore called Karites, that is, Scrip-
turists: both of them look yet for the
Messias (though the signs of his
coming be long since past) and that
he may stay no longer, they often keep
fasts with mourning, humbling them-

miliantes

miliantes in cilicio & cinere,
& implorantes commiseratio-
nem Dei Abrahami, Isaaci, &
Jacobi.

*selves in sackcloth and ashes, and
imploing the mercy of the God of
Abraham, Isaac, and Jacob.*

C A P. XCVII.

CHRISTIANISMVS.

CHRISTIANITY.

950. *Christiani sunt qui cre-
dunt promissum Salvatorem
jam venisse, cumque esse Jesum
Nazarenum, rejectum à Judæis
ob minus pompaticam con-
ditionem: quia vident divini-
tus factas prædictiones in illo
adimpletas omnes.*

*950. Christians are those who be-
lieve that the promised Saviour is
already come, and that Jesus of Na-
zareth was he, that was rejected of
the Jews for his less stately condition:
because they see all the divine predi-
ctions fulfill'd in him.*

951. Putà quòd natus sit præ-
nunciato tempore, post ablatum
sceptrum à Juda: in loco quem
nominaverat os Dei, Bethlehem,
& è domo Davidis; & ex ma-
tre virgine, Maria; quòd po-
tens fuit verbo & opere, edi-
ditque signa verè divina; &
vixit vitam sanctissimam, prorsus
immaculatam; & morti
adjudicatus innocens, solâ in-
vidiâ, sustinuit eam patien-
tissimè (propter peccata mun-
di, sicut prædixerant prophe-
tæ, & præfiguraverant omnes
victimæ, & ipse moriturus di-
xit se tradere animam suam in
lytrum, Mat. 20. 28; & se san-
ctificare pro hominibus, ut
ipsi sanctificentur, Job. 17. 19.
orans pro crucifigentibus se,

*951. For instance, that he was
born at the time foretold, after the
scepter was departed from Juda;
and in the place which the mouth of
God had named, at Bethlehem, and
of the house of David, and of his
mother the virgin Mary; and that
he was mighty in word and work,
and put forth signes truly divine; and
lived a most holy life, altogether
blameless, and being adjudg'd to
death innocent, for stark envy, he
bore it most patiently (for the sinnes
of the world, according as the pro-
phets had foretold, and all the sa-
crifices had prefigur'd,) and him-
self at his death said, that he had
laid down his life for a ransome,
Mat. 20. 18. and that he sanctified
himself for men, that they might be
sanctified, Joh. 17. 19. praying
&c*

& sic vincens omnes tentationes, *novus Adam*.

for those that crucified him, and thus overcoming all temptations, a second Adam.

952. Item, quòd resurrexit tertiâ die, à mortuis, reversusque ad suos redivivus, ascendit in cœlum illis insistentibus, indeque demisit spiritum paracletum super suos (juxta factam promissionem;) quos instructos dono linguarum emisit ad gentes, ut nuntiarent verbum, per quod mundus erat factus, incarnatum fuisse, & habitasse in nobis; peractôq; opere redemptionis rediisse ad partem, indidémque reversurum ad judicandum vivos & mortuos: ut quicumque recipisceret & crederet, baptizareturque (in nomine Patris, & Filii, & Spiritus sancti) salvaretur.

953. Et quòd huic inermi prædicationi cooperata fuerit virtus ex alto: quia utut Apostoli (oculati illi testes omnium) crudelissimè internecabantur, unâ cum suis affeclis; devicerunt tamen martyres, & mundus occubuit, porroque etiam gentes convertuntur virtute crucifixi ad Deum Abrahami, accepturæ illam benedictionem promissam omnibus.

952. Also, that he rose again the third day from the dead, and returning to his disciples with life, went up into heaven in their sight and sent down thence the spirit the comforter upon them (according to the promise he had made them:) whom having furnished with the gift of tongues he sent forth to the nations, that they might declare, that the word, by which the world was made, was incarnate and dwelt among us; and having finished the work of redemption returned to the father, and would from thence come back again to judge the quick and the dead: and that whosoever should repent and believe, and be baptiz'd in the name of the Father, and of the Son, and of the Holy Ghost, should be saved.

953. And that the virtue from on high did work together with this unarmed preaching: because though the Apostles (those eye-witnesses of all things) were most cruelly slain, together with their followers: yet the martyrs conquered, and the world yielded, and the nations are still all along converted by the virtue of him that was crucified, to the God of Abraham, that they might receive that blessing which was promised to all.

954. Hæc professio facit *Christianos* : habentes canonem suæ religionis *Biblia*, hoc est, omnes libros scriptos afflatu divino, (in *vetero testamento*, *Mosis & prophetarum*; in *novo*, *evangelistarum & apostolorum* :) ex qua plenitudine revelationum potest promanare sublimitas fidei, sanctitudo vitæ, excellentiâque spei, præ omnibus antehabitis.

955. O igitur felices Christianos, si norint sua bona, & se composuerint ad exemplar sui præcessoris! Habent enim ante se luculenter, quid *credendum sit*? nempe quæ dominus docuit; & quid *faciendum*? nempe quæ dominus fecit, (exinaniendo seipsum, & resignando propriam voluntatem; & subdendo se Deo ad faciendum & patiendum omnē ejus voluntatem;) & denique *quid sperandum*? nempe quæ Dominus consecutus est post suum exinanitionem gloriosam *resurrectionem & vitam æternam*.

956. Hæc est brevissima summa Christianismi & perfecta, simulque compendiosa via cæli, quæ docetur summam in ipsa catechesi : quia *symbolum apostolicum fidem format*, *charitatem decalogus normat*;

954. *This profession maketh Christians: having for the canon of their religion the Bible, i. e. all the books written by divine inspiration, (in the old testament, of Moses and the prophets; in the new, of the evangelists and the apostles :) out of which fullness of revelations may issue forth the height of faith, holiness of life, and excellency of hope, beyond all formerly had.*

955. O therefore happy Christians, if they knew their own good, and compos'd themselves to the example of their predecessor! for they have plainly before them, what is to be believed? to wit, those things which the Lord hath taught; and what is to be done? namely those things which the Lord hath done, (by emptying himself, and resigning up his own will; and submitting himself to God; to do and suffer all his will :) and finally what is to be hoped? to wit, those things which the Lord attained after his humiliation a glorious resurrection, and life everlasting.

956. This is the briefest summe of Christianity; and perfect, as also a compendious way to heaven; which is summarily taught in the very catechism it self; because the apostles creed forms our faith; the decalogue [ten commandments] re-
oratio

oratio dominica provocat spem, quam sacramenta obsigillant: quæ omnia omnes habent, tamen dispariliter.

957. *Cœlestis quidem magister commutans umbras Mosaicas veritate (nè inanes essent) & explanans salebrosam viam legis in sanctam viam Sionis (per quam nè quidem stulti errarent, Jes. 35. 8.) revocavit totam moralem legem ad unicum præceptum dilectionis; & totam ceremonialem ad ritum baptismi & eucharistiæ, (illum sacramentum regenerationis nostræ, hanc nutritionis ex illo:) totam denique forensam ad institutum ecclesiasticæ disciplinæ, consistentis in admonitione, correptione, excommunicationeque viclavium cœlestis regni: quas reliquit ecclesiæ, Christiana tamen prolapsi sunt in disceptationes super his.*

958. *Vis ergo videre sensum circa ista; multus est sanè, pro dolor! etiam in adiaphoris: commemorabo quædam, in quibus est consensio aut dissensio.*

959. *Diem Dominicum in quo resurrexit Dominus, omnes agunt festum; cæteras annivarsarias festivitates dividunt in*

Christieth charity; the Lord's prayer raiseth hope, which sacraments seal: all which all have, though severally.

957. *Our heavenly master indeed changing the Mosaical shadows for truth (that they might not be vain and empty,) and levelling the rugged way of the law into the holy way of Sion (through which even the foolish might not erre [mistake,] Jes. 35. 8.) reduced the whole moral law, to one precept of love; and the whole ceremonial law to the right of Baptism and the Lord's supper, (that the sacrament of our regeneration, this of our nourishment from him :) finally all the judicial law to the order of Church discipline, consisting in admonition, reproof, and excommunication, by the power of the keys of the heavenly kingdom: which he hath left to the Church: yet Christians have fallen into controversies about these.*

958. *Will you therefore see their dissent concerning these things: it is indeed great, wo alas! even in things indifferent: I will speak of some, wherein they agree or disagree.*

959. *The Lord's day, on which the Lord rose again, all keep holy; the other yearly festivals [holy dayes] they divide into standing (set) days,*

S

stativas

stativas (statas,) & *conceptivas*: illæ recurrunt quotannis iisdem mensium diebus, ut *natalitia Christi*, & reliqua *immobilia festa*: hæ mutant diem, ut *pascha*, & dehinc *pentecoste*, & alia *mobilia festa*: sed & admittunt imperativas ferias, inditas interdum publicis jejuniis & supplicationibus.

960. Cum *feriatus dies* illuxit, pientiores præparant prius sacris exercitiis se & suos domi; conveniuntque dum cætus convocatur pulsu campanarum; ubi ædituus pandit januas sacræ ædis, & chorus cantorum decantat ad pluteū *psalmos*, *hymnos*, & *spiritualia cantica*; simul accinente populo & assonante concentu organorum (musicorum) ubi habentur.

961. Mox *concionator* prodiit ex adyto (sacrario) & de cathedra (devocans prius gratiam Sp.S.) prælegit *biblia*, & dilucidat paraphrasi: jam catechifans rudes; jam exhortans peccatores ad resipiscentiam, terrefaciensq; refractarios, & sic prædicans *legem*; jam consolans contrita corda, per merita & satisfactionem Christi, & sic annuntians *Evangelium*.

and unmoveable; those return every year on the same dayes of the moneth, as Christmas, and the other unmoveable feasts: these change the day, as easter, and after that whitsontide, and the other moveable feasts: but they admit [allow] also of holy dayes commanded, appointed now and then for publick fasts and prayers.

960. When a holy day is come, the more devout prepare themselves and their people first at home, with holy exercises: and come together [meet,] while the assembly is call'd together by the ringing [chiming] of bells, where the sexton openeth the Church doors, & the quire of singers sing at the desk psalms, hymns, and spiritual songs: the people also singing along with them, and the consort of the organs, where they have them playing.

961. By and by the preacher comes forth of the vestry, and out of the pulpit (first calling for the grace of the holy Spirit) reads before them the Bible, and clears it with a paraphrase: sometimes catechifing the ignorant; another while exhorting sinners to repentance, and affrighting the refractory, and so preaching the law; another while comforting the broken hearts, by the merits and satisfaction of Christ, & so declaring the Gospel.

962. Finitâ concione, peractisque precibus ac *litanâ*, Ecclesiastes dimittit concionem, faustâ apprecatione ac denunciatione benedictionis: sæpe tamen absolvendo poenitentes, administrat sacramenta; impoenitentes autem excommunicando, excludit participatione.

963. Incorporandi Christo & ecclesiæ baptizantur etiam infantes: sed quos edoctum iri mysteria fidei, fidejudent pii ad hunc actum exorati; quos postea baptizati vocant suos susceptores, ipsorum autem parentes, suos *compadres & commatres*.

964. Reperiuntur tamen, qui tales rebaptizant, inde dicti *Anabaptistæ* opinati infructuosum esse *pædobaptismum* ab insciis susceptum; qui suis conferunt baptismum nonnisi adultioribus, professis fidem & obedientiam ore suo, dum se scientes volentes devovent Christo: *Abyssini* rursum iterant baptismum quotannis, superadjiciuntque ei circumcisionem; *Coptitæ & Suriani* addunt baptismum ignis, inusto caractere crucis: alii superaddunt exorcismum & chrisma: alii denique immergunt

962. The sermon being ended, and prayers and the letany done, the Minister dismisseth the congregation, with a happy prayer, and pronouncing of a blessing: yet oftentimes absolving those that are penitent; he administ'reth the sacraments; but excommunicating those that are impenitent, he excludeth them from partaking.

963. Those that are to be incorporated into Christ and the Church are baptized, even infants: but such as some godly persons being desir'd to this act do engage shall be taught the mysteries of faith, whom afterwards those that were baptiz'd call their God-fathers & God-mothers, but their parents term them godfathers.

964. But there are some, who do baptize such again; thence called Anabaptists, supposing that infant-baptism is fruitless being received by them that understand it not: who confer not baptism upon their own till they are grown up, professing faith and obedience with their own mouths, when wittingly and willingly they give up themselves to Christ: the Abyssines again, go over baptism every year, and moreover add circumcision to it; the Coptites and Surians add the baptism of fire, burning the character of the cross upon them: others add besides exorcism and chrism: to conclude, some dip bapti

baptizandos flumini; alii conspergunt solum aquâ, ad baptisterium.

965. Et quia Christus daturus se morti pro nobis, sanxit (loco paschalis agni) cœnam novam, in qua mandavit fideles suos cibari carne suâ, traditâ pro nobis in mortem; & potionari sanguine suo, effuso in remissionem peccatorû: recolunt omnes celebratione hujus sacrificii, quam non sine exprobratione sibi invicem discrepationis, sententiarû & ritû.

966. Si spectes ecclesiasticos ordines: pastores apostolorum tempore pascebant ecclesias; doctores invigilabant puritati doctrinæ; seniores attendebant exercitio disciplinæ; diaconi curabant collectas, eleemosynas, erogabantque inter egenos: sed postea gradus aucti fuerunt, ut hierarchia Græcæ & Latinæ ecclesiæ apparatusissima facta sit: ubi nemo admittitur ad clerum, nisi ordinatim ascendens.

967. Nam primum initiantur ostiarii, dehinc exorcistæ, tum lectores, mox acoluthi, postea diaconi, tandem presbyteri: quibus potestas datur faciendi missam, audiendique auriculares confessiones, & conspergen-

those that are to be baptized in a river; others sprinkle only with water, at the font.

965. And because Christ being about to deliver himself to death for us, ordained (instead of the paschal lamb) a new supper, wherein he commanded his believers to feed on his flesh, which was given for us into death; and to drink his blood, poured out for the remission of sinnes: all observe the celebration of this sacrifice, although not without the reproach of disagreeing with one another, in opinions and rites. [customs, usages.]

966. If you look upon ecclesiastical orders [degrees:] pastors, in the time of the apostles, fed the church; doctours watched over the purity of doctrine; the elders attended on the exercise of discipline; the deacons looked to the gathering of almes, and bestowed it amongst the poor: but afterwards degrees were encreased, that the hierarchy of the Greek and Latine church became most accomplished, where none is admitted into the clergy, unless he ascend orderly.

967. For first they are entered door-keepers, next exorcists, then readers, then attendants, afterwards deacons, at last presbyters: who have a power given them to offer mass, and to hear auricular confessions, and to besprinkle with holy

di lustrali

di lustrali aquâ (aspergillo ex aquiminali haustâ) & ungendi moribundos, copulandiq; novos nuptos.

968. *Sacellani* præficiuntur minoribus sacellis; *parochi* uni parœciæ, quarum plures constituunt *diœcesin* (seu episcopatum:) episcopatui verò præest *Episcopus*, cum suis canonicis & suffraganeis: & aliquot episcopis, *archiepiscopus*: quibus rursûm superior est *patriarcha*: summus autem inter hos *papa* cum *cardinalibus* suis.

969. *Monachi* inhabitant monasteria, professi spontaneam paupertatem, & castimoniam, & obedientiam, secundum certam regulam: quibus præsunt *antistites* (scilicet abbates vel præpositi;) monialibus verò *antistitæ*, seu *abbatissæ*: *eremita* tenet se in eremo.

970. Invehentes dissidia, & discidia vocantur *schismatici*: deficientes à fide, *apostatæ*; defensitantes pertinaciter erronea dogmata: *hæretici*; ipsi verò authores hæresium, *hæresiarchæ*.

971. Cujusmodi scandalis quoties obviandû est, convocatur (pristino more) *synodus provincialis* vel *nationalis*, aut etiam *concilium œcumenicû*: ubi con-

water (taken with a sprinkler out of the pot) and to give the extreme unction, and to marry people, &c.

968. Chaplains are set over lesser chappels; parish priests over one parish, whereof many make a diocese (or bishop's see:) now over a bishoprick is a Bishop with his prebends [canons, chapter] & suffragans [surrogates:] and over some bishops, an Arch-bishop; above whom again is a Patriarch; and the chief among these is the Pope, with his Cardinals.

969. Monks [Friers] dwell in monasteries, making profession of voluntary poverty, and chastity, and obedience: according to a certain rule: over whom are set governours (to wit abbots or priors,) but over the nuns governesses, or abbesses: an hermite keeps himself in his hermitage [in the wilderness.]

970. Those that bring in differences & divisions, are called schismaticks: those that fall from the faith, apostates: those that stiffly maintain erroneous doctrines, hereticks; and the authors themselves of heresies, ring-leaders of heresie.

971. Which kind of offences as oft as they must be remedied, there is called together after the ancient manner a synod provincial or national, or else a general council,

gregati *summates orthodoxi*, assertoresque catholicæ fidei, determinant controversias, componuntq; *schismata*, & dicunt *anathema blasphemantibus*: quæ tamen sunt supra caput, relinquunt indecisa; & quæ non possunt emendare, commendant Deo.

where the chief divines that are orthodox, and the assertors of the catholic faith being met [assembled,] do put an end to controversies, and compose schisms, and pronounce anathema on those that blaspheme: yet those things which are above their reach, they leave undecided: and those things which they cannot mend, they commend to God.

C A P. XCVIII.

MAHOMEDISMVS.

972. *Mahomedani* sunt, qui recipiunt tertium magnum prophetam (post Moysen & Christum) *Mahomedem*: qui cum esset homo bellator, regnorumque affectator, ut mundus religionem haberet faciliorem, quam illi visus erat *Judaismus*, onerosus ceremoniis; & *Christianismus*, scrupulosus sublimitate sensuum; introduxit novam miscellaneam ex utraque.

973. Ubi instituit feriaticum diem esse suis sectatoribus, *Veneris diem* (quod eâ die homo creatus esset;) & precari atque ablui quinquies de die; interdixit verò iisdem suilla & vino; indulgit contra polygamiam, promisitq; post obitum corporæ voluptates in paradiso, &c.

MAHUMETANISM.

972. The Mahumetans are those who entertain Mahomet as the third great prophet, after Moses and Christ; who being a warrior, and pursuer of kingdoms, that the world might have an easier religion than he thought *Judaism*, clogg'd with ceremonies; and *Christianity*, scrupulous with the loftiness of meanings, he brought in a new one, being a mingle-mangle out of both.

973. Wherein he hath appointed Fryday to be the holy-day [sabbath] for his followers, because on that day man was created; and to pray and wash five times a day: but hath forbidden them swines flesh and wine; and on the contrary hath allowed them many wives, and promised them after death bodily pleasures in paradise, &c.

974. Doctri-

974. Doctrinam suam descripsit *Arabice Alcorano* (diviso in *azoaras* 114. & continente, præter fragmenta legis & evangelii, additamenta quædam) quam interpretantur illorum *mystagogi*, dicti *Talismanler* & *dervisi*; quorum supremus *muffti* est.

975. Dissident ipsi quoque *musulmanni* (seu *muslimi*: ira enim seipfos nuncupant) dum alii volunt solum *Ali* authenticum interpretem *Alcorani*; alii sociant huic *Ebubecar*, *Aomar*, *Osmar*: & hoc est, quapropter *Turcæ* cum *Perfis* adeo in bellis sæviunt; alioqui utriq; expertes cognitionis rerum, administrantēque res suas tantum severitate.

976. Deplorandum verò est, nos hic disconvenire, ubi conveniebat esse convenientiam maximam; in advenerando uno illo conditore omnium; nec minùs tamē inconveniēns, quod *Libertini* faciunt, velle approbare religiones omnes & sectari quæcunque: subest enim deceptio, Deusque zelotes vult nos esse ferventes in suo cultu, abesse torporem.

974. His doctrine he set down in the Arabick tongue in the *Alcoran* (which is divided into 114. *azoara's* or sections, and contains besides broken pieces [scraps] of the Law and Gospel; some additions,) which their priests call'd talismans and dervises do interpret, the chief of whom is the *muffti*.

975. The musulmans also themselves disagree [are at odds] whilest some will have *Ali* to be the only authentick interpreter of the *Alcoran*; others joyn with them *Ebubecar*, *Aomar*, *Osmar*; and that is it, why the *Turks* and *Persians* make such fierce warres upon one another; being otherwise both of them void of the knowledge of things, and ordering their affairs only by severity.

976. Now 'tis a sad thing, that we should disagree in this, where there ought to be the greatest agreement; in worshipping that one maker of all things; nor yet is it less inconvenient, which the *Libertines* do, to have a mind to like all religions, and be of any one: for there is a deceit in that, and the jealous God will have us be fervent in his worship, without *lukewarmness*.

C A P. XCIX.

*Providentia Dei, finisque
rerum.*

The providence of God, and
the end of things.

977. Aspectasti visibilia :
superest ut tibi ostendam ea,
quæ non possunt spectari, nisi
oculo mentis ! Ain' ? ecquæ
illa ? *Reconditissimum Illum*, qui
essentialiter incomprehensibi-
lis permeat omnia, operaturq;
omnia in omnibus : cum oc-
cultis exsequutoribus consili-
orum suorum, angelis.

977. Thou hast taken a view of
things visible : it remains that I shew
thee those things, which cannot be
beheld but with the eye of the mind :
say you so ? what are those ? that un-
searchable One, who being by
essence incomprehensible, passeth
through all places, and works all in
all : with the secret performers of his
counsels, the angels.

978. Tamen sic enim opitula-
tor omnium non sit indigus o-
pis, fuit tamen placitum illi
constituere sibi præveloces ad-
ministratos providentiæ suæ, non
præpeditos corporali mole :
quia mandati obiret mandata,
functique legatione referrent
se ocysimè, & circumstarent
thronum gratiæ.

978. For albeit the helper of
all do not stand in need of help, yet
it pleased him to appoint for himself
very swift attendants of his provi-
dence, not hindred with a bulk of
body : who being sent on messages
might dispatch his commands, and
having discharg'd their embassy
might with all haste return, and stand
about the throne of glory.

979. Sed pars illorum de-
sciverunt ob intemperationem
per arrogantiam, suntq; detur-
bati cælo empyreo ad orcum : qui
autem perstitērunt, confirmati
sunt, nè ampliùs possint labi.

979. But part of them fell from
their obedience through pride, and
were tumbled out of the empyreal
heaven into hell : but those who
stood, were confirm'd, that they
might not fall any more.

980. Novimus eos distin-
gui nominibus : sed quæ no-
bis incomperta sunt, præter
Gabrielis, Raphaelis, Urielis, &c.
malignorum spirituum caput
vocatur *Beelzebub & Lucifer*.

980. We know that they are di-
stinguish'd by names : but such as we
are not acquainted with, besides that
of Gabriel, Raphael, Uriel, &c.
the head [chief] of the evil spirits is
call'd Beelzebub and Lucifer.

981. *Boni* associant se piis insensibiliter ad averruncandum mala, & eos protegendum ab insultibus vastatoris, tandemque inferendum animas æternitati: apparent interdum, disparéntque rursum; non præstringendo oculos, sed reapse.

982. *Mali* genii, cum apparent in persona alicujus malè demortui, dicuntur *larvæ*; cum homines proterrent, *spectra*; cum infesti sunt infantibus *lamiæ*; cum tumultuantur per intempestam noctem, *lemures*; cum famulantur alicui veteratoriè, *lares* & *penates*: justus tamen dispensator omnium, utitur illis quoque ad salutarem piorum probationem, & promeritam divexationem impiorum.

983. *Stulti* ergo sunt *Epicurei*, facientes ociosum illum perbeatum, quem censent non esse fatigandum tumultu rerù: quem tamen interesse rebus inseparabiliter, arguunt *vaticinia*, & *portenta* ac *prodigia*, præsignificantiæ ac portendentia ingentes mutationes, toties comprobata eventis, ut scias præmoneri nos ab omniscio.

984. *Insani* quoque sunt *Stoici*, qui ex connexionione cau-

981. The good do unperceivably accompany the godly, to drive away evils, and to protect them from the assaults of the destroyer, and at last to bring souls to eternity: they do appear sometimes, and disappear [*vaniish*] again; not by dazzling the eyes, but in very deed.

982. Evil spirits, when they appear in the shape of one that made an ill end, are called ghosts: when they otherwise affright folks, sights; when they trouble little children, fairies; when they make a bustle at midnight, hobgoblins; when they do one service knavishly, powks and Robin-goodfellows: however the just dispenser of all things makes use of them too for the saving tryal of the godly, and the deserved vexation of the wicked.

983. Therefore the Epicureans are silly, that make that blessed One idle, who they think should not be wearied with the bustle of affairs: who yet that he is inseparably amidst our affairs, those prophecies, and strange signes and prodigies do prove, that fore-token and portend great changes, having been so often made good by events, that one may know we are fore-warn'd by the All-knowing.

984. The Stoicks too are out of their wits, that by conversion of nature

farum

farum naturalium catenantur, cui etiam innectunt motorem & rectorem omnium: sic enim res non procedere coarguit, quod non veniunt semper eadem effecta ab eadem causa; quemadmodum experientur astrologi.

985. Denique vesani (excordes) *Machiavellistæ*, qui autumant mundum regi humanis consiliis: cum tamen negotia (callidissimorum quoque) non sic finiant quomodo inchoant: quin videmus hos tandem infelicitari maximè.

986. Tu firmiter statue, utcunque res nostræ subjaceant vicissitudinibus, eas tamen nec volutari temerariis casibus, nec constringi fatali necessitate, nec versari humanis astutiis: sed providentissimo consilio ejus, qui prævidet omnia ab æterno, & disponit secundum beneplacitum suum.

987. *Fors & fortuna* nihil sunt; etiam si dentur fortuiti casus: hi enim dicuntur respectu nostri, non providentiæ; quæ tam præscit quid futurum sit cras, perendie, & deinceps; atque scit quid factum est heri, pridie, & abhinc tot annis: quippe prædestinavit omnia bonis in bonum.

tural causes do make a chain of fate, to which also they link the mover and ruler of all things: for that things are not so carried, appears, that there doth not alway come the same effects from the same cause; as astrologers find by experience.

985. To conclude, the machiavillians are stark mad [arrant dolts] to imagine the world is govern'd by humane counsels: when yet the affairs (of the very cunningest) do not end so as they begin: may we see that such are at last most unfortunate.

986. Do you firmly resolve, that, however our affairs lye under turnes and changes, yet they are not tumbled by rash hazards, nor bound up with fatal necessity, nor managed by crafts of men: but by the most provident counsel of him, who fore-sees all things from eternity, and disposes them according to his good pleasure.

987. Hap and fortune are nothing, though there be uncertain chances: for these are so termed in respect of us, not of providence; which as well fore-knows what will be to morrow, the next day after, and so forward; as it knows what was done yesterday, the day before, and so many years agoe: forasmuch as it hath predestin'd all things for good to those that are good.

988. In

988. In sunt ergo omina rebus : at captare præsagia usque quaque, est *superstitio* : si dignabitur manifestare aliquid tibi, qui providet omnia, non latebit tibi : tu eccur velis anticipare fata tua ?

989. Lætetur potiùs, nos esse curæ *illi*, qui meliùs novit quid expediat nobis, quàm nos ipsi, habétque amplam facultatem benefaciendi : quippe in cujus manu sunt omnia, & cujus imperio cœrcetur ipsa quoq; potestas inferorum.

990. Interea tamen faciamus consultò sub metu ejus, quicquid possumus, ne quidquam eveniat nobis fortuitò : si quis nescit rationaliter agere, & competenter fiduciam collocare in *moderatore* rerum, irrequietus est, & expositus infortunio : ex adverso, qui recte agens non diffidit *illi* fidelissimo, seu illi contingunt bona, seu accidunt mala, sedatus erit, præsumens lætitiâ æternantis bonitatis ejus.

991. Adveniet enim *novissima dies*, quâ mundus deflagrabit & corruet, nos autem resuscitabimur : ubi patefient omnia, manifesta & occulta, ratioque reposcetur ab omnibus antea factorum, cogitatorum, dictorum, factorum.

988. Therefore there are guesses in things : but to catch at signs of luck upon all occasions, is superstition : if he that forecasts all things, shall vouchsafe to manifest any thing to thee, it shall not be hid from thee : why wouldest thou anticipate [fore-stall] thy destinies ?

989. Let us rejoyce rather, that He takes care of us, who knows better what is meet for us, then we our selves do, and hath a large ability of doing us good : inasmuch as in his hand are all things, & by his command the very power of hell is restrain'd.

990. Notwithstanding in the mean while let us be doing, whatsoever we can, advisedly in his fear, that nothing may happen to us casually : if any one knows not how to act rationally, and in a competent manner to place his trust in the orderer of all things, he is restless, and expos'd to misfortune : on the other side, he who acting honestly doth not distrust Him the most faithfull one, whether good things betide him, or bad befall him, will be at rest, reaping afore-hand the joy of his everlasting goodness.

991. For the last day will come, wherein the world shall be on fire and be destroy'd, but we shall be rais'd again and come to judgement ; where all things shall be laid open, whether manifest or hidden, and an account shall be requir'd of all, of former passages, thought, said, or done. 992.

992. *O*ter beatos, qui tunc habebunt propitium! pascuntur enim non ambrosiâ & nectare (ut fabulati erant ludiones poëtæ) sed absconditis & ineffabilibus suavitatibus, in sempiternum.

993. *At* vae illis infelicibus, qui patrarunt abominanda! detrudentur cum rerum perditore in gehennam: excrucianti inenarrabilibus tormentis: vindex enim gloriæ suæ erit iudex universorum.

994. Ita erit finis omnium, *salus* aut *exitium*, nunquam desitura: hûc exeunt omnia, etiam nostrû lustramen mundi.

995. Faxit miserator noster, propter misericordiam suam, ut nunc jam annumeremur *cœlitibus*, quoad hûc sumus sanctè vivendo, & quotidie suspiriis penetralia cœli penetrando.

992. *O* thrice blessed those, who shall have him their friend! for they shall be fed, not with ambrosia and nectar (as the jesting poets tell stories) but with hidden and unspeakable sweetest for ever.

993. But woe to those unhappy ones, who have committed abominable things! they shall be thrust down with the destroyer of the world into hell, to be tormented with unutterable torments: for the Judge of the world will be the avenger of his own glory.

994. Thus shall the end of all things be, salvation or destruction, never to have end: hither all things tend, even our view of the world.

995. Grant our mercifull God, for his mercy sake, that we may very now be reckoned amongst the heavenly inhabitants, by living holily as long as we are here, and piercing daily the inmost places of heaven with our sighs and breathings.

C A P. C.

C L A U S U L A.

996. Cedò, sodes, si quid super sit! nam eatenus tradita consequutus sum, absit jactantia dicto.

997. Siccine? Maeste esto virtute! Euge subegisti ingenio succinctam synopsis rerum omnium, totiusque Latine

T H E C L O S E.

996. Tell me, I pray, if there ought remain? for those things which have hitherto been deliver'd, I have attain'd; without boast be it spoken.

997. Say you me so? go on and prosper. Well done! you have with your wit master'd a succinct survey of all things, and of the whole Latine
 nx linguæ;

næ linguæ : reor nihil esse o-
missum tantopere.

998. Propèra sis, ingredi
atrium, pertransitâ Januâ ! ut
post simplicem nomenclatu-
ram rerum lustres elegantias
sermonum; scientiâque tua
fiat tûm locupletior, tûm po-
litiôr, variis complementis &
scitamentis.

999. Admonéo tamen te,
loco auctarii, ut agas potiùs
potiora, allaboresque esse me-
lior, quam videri doctior : nè
tua scientiola tecum dispere-
at? quæ quotus quisque ad-
vertit? Tu memento & vale,
votûque vota Deo.

1000. JEHOVÆ Zebaoth,
à quo, per quem, & in quem,
sunt omnia, æternum individue
adorandæ TRINITATI, sit
honor in secula seculorum, Amen.
Hallelujah!

F I N I S.

longue : I suppose there has bin no-
thing omitted to speak on.

998. Make haste, if you have a
mind to enter the atrium, having
past through the Janua, that after a
plain right-naming of things thou
mayst view the elegancies of speeches,
and thy knowledge may be made both
richer and finer by various accom-
plishments and curiosities.

999. However I admonish [ad-
vise] you, by way of vantage, that
you would rather practise the choicer
things, and endeavour to be a better
man, then to be thought a better
scholar : for fear that your little pal-
try knowledge should with your self
come to nought : which how few are
there take notice of? Do you remem-
ber, and farewell, and make vows
unto God.

1000. To the LORD of Hosts,
from whom, by whom, and unto
whom, are all things, the eter-
nally undivided and to be ad-
ored TRINITY in Unity, be
honour to ages of ages, Amen.
Hallelujah!

T H E E N D.



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F I N I S.

S Y L L A B U S

Scriptorum è Latinis Veterum,
 quorum autoritate voces in contextu Januæ potissimum nituntur:

Sunt autem.

Historici, Oratores, Philosophi, Poeta,
 & quidem generis mixti.

Caesar.

Cato.

Carullus.

Celsus.

Cicero.

Columella.

Curtius.

Florus.

Horatius.

Juvenalis.

Livius.

Lucanus.

Lucilius.

Lucretius.

Martialis.

Mela.

Corn. Nepos.

Ovidius.

Palladius.

Persius.

Plautus.

Plinius uterque.

Propertius.

Quintilianus.

Sallustius.

Seneca uterque.

Silius Ital.

Solinus.

Stadius.

Suetonius.

Tacitus.

Terentius.

Tibullus.

Valerius Max.

Varro.

Vellejus Par.

Vitruvius.

